

AAACTTATAAGTTTTAACTCAGTGTAATAATGTCGCCGTCTGGGTAAAAAGAGTGGTAATC  
TATGTATTAACTAAATTTTCATTATACACTTATGGAATTTTCTTGTTGACAGCAAAATAT  
ATAGACATAATCCATTTT

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 119>:

**gnm\_119**

TTGTCCAACCTATCTACTATACCTTATGTGAAAAATACATACATATGCCCAAATTTGTTATC  
AAACCAAAATGTTCTGGAAATAGCCCATTTGGACATCTATTTATAAAATTGCATACACTTT  
10 AGCTAAAAAAGTACTTCAGTTTGTGTTAGAAATATTCAAATTCAGAATTATTTTTGA  
AAGAATTGTGTGCAGAATATCAAAGAAATTTTGAAATAATTCAGAATTGTGTACACAATA  
TCAAAAAATCCATTTTCGAAAATGCTTTGTACACTTGTGTTTTGGCTTGATTTTTATTTT  
AAAAAGTATGATATGTAAAATAAATAGGAAGTGTAGGATTATTCTTTTTCTTGCTCAATAA  
AAAAATAAAAAATAATCATATGCATTTATGAAGATAATTAACTTTTAAATACTTTTAAAT  
ATTTTCATACATATTATCCATTTCTCATTCCAAAAAAGAGTTTAATTCTCAGTTTCAGAA  
15 TAAAATGTGGGCCTTATACAGATTTAGTTGGCCCATTAATGTACAGGTGACATAATCCA  
CCAACCTCGTTTCTCCTGACACAAAAAATATCTCATCATGTCTTCTTCTCGTATTCGTGT  
CTCTCATTTCTTTTTTGTACTCTTCTTTCCAAAAAGGATTAGATCTGACTCACTATTACG  
TGTCACGCACAGTTTCATTAGGTACGCTCGGAAAATTTTATCCACACATCTAAATATCTGA  
TTTATGATCAAATCACCCATTTTTATTTTTCTTTGTAGCTTCTCAAATCTTTTGTCTCT  
20 TAATCGATTTAAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 120>:

**GNMCG24R gnm\_120**

CAGTCAGGTTACTAATAAACTTTTCATTATCCCTTCTTTGTTATATTACTAATAGACCAAA  
25 AACATTTTCAGATACTCAGTGCCGATGTAGAGCCTAAGAAGAAGCTAAAGCACATTGTCAT  
GGCGGCTACAAGGTGAGTCTAAAAACAAGTGTCTCTTTAATGATTCTTCCCAAAATGA  
TTGTTTGTTCCTTGTTAATATATAGGGAACAGAGGTTTGAGAGGGTGACTAAAAATCTA  
AAAGTGGCAAGAGTGTAAACACATTGGTAGAGGAAATGAAAGCAATGGGGATCGCATCT  
GTTGATGACTCAGAGTGACAGAAGTTATGGCTCCAGTTGCACACAAGGACCGAAGCCCG  
30 GTTCTACTTCTTATGGGAGGTGGTATGGGTGCAGGAAAGAGCACTGTGCTTAAAGACATT  
CTCAAAGAGTAAGTAAAGTATCAACATATCTGTCATTAATCAGTGTCTTATGCATTGAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 121>:

**GNMCG25R gnm\_121**

ATATAAGAGTTAATCTTATAAATAGTTTTCTGAACTTAATATACTATAACAATGTAAAA  
35 GTCGTCGCTTTGTTATTTGAAGTGAAAAATTAAGCAATGTTATGATATTTTACTAATTAA  
CTCAATATGAAAAACAAAAATCCTCTTAACATAAAACAGAAACATAAAAGACGACTTAGTT  
TTTGCTTTAGATCTAGACTCATAACTCAAAAAACAATTTTCATTATAAACTTTTGTAGATC  
TTACAATTTTAAAAATAAATGTACATTAATGTTGAAAAGCAAAATCTTAAATTAGTGTAT  
40 ACTACTACTTTTTTTTTATCACCGTGATAGATCATTAGATCCTTAACCTCAATCCCTAGA  
GCCTGCTTATTGCCTTTAAGCATTGTGCAATCACTACCAACACACTCAAACTAAATAA  
ATATAATTTATAACTTATCAAATAAAATAAATAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 122>:

-637-

**gnm\_122**

CCTCGAATTTGTTTTATTTTTTCATTAATCAGACCAGACACAGTTGGGATAAAATGAAAG  
 GGGCTTGAGGAGTGAGGACGGAGAACCACACGTGTCCACACAGTTGTGATAATTTTTTTA  
 TTCAACAATAAAATTGCAAGAGACGAGTTTGGTAAGTAAATCCGGTTGAACCGGTCCGAC  
 5 CGGTATTGACCGAAACATACAATCTTTATAGTCTTCACACATTGTTCCCAACTTTAAAC  
 TTAGAAACCTTAGATGTTGTATTCAATAATTGTCAAACCACAAGTACTGACAGATACAGA  
 TTTAAACATTTTTGTTTTGATCAATTTAACTAGATCTGTTCAATTCACCTGAAAACAAGT  
 CTCTACAGAGTTCTCCATAAAATCTTGAGACAAGTTCAATGAAGACAGGACTCTTAAGAT  
 TCTTCCAACAGAAGAGAAGTTCCTCTATGTCCATTAAGTCATCTATTTTCCCTTCTTCAA  
 10 CAATCAGATGAATCAGATAGTTTTCAAAGCTTCTACAAGCATCTTCCACAGCATTGTCTT  
 CAAATGTATCTCTTGCGTTTCAGCGATTTCCTGGTCCGTGAAGAGTAAGGTGTCGTGATGG  
 GTGAAGTGAAGAGCTTCTTGGCTGTGTGCTGGCGTAAGAGGTGATTGCATAAACTTGGAGT  
 AATCATCATCGTTCACACTAACTGCAATGGCAAAATAAGAGAACAAAGAGATCAAGAAGC  
 TGATAAAATTTCAATGTTAAACAGATTTTGTAGCGAAGTTGTCTTACAAGAGGAACTTC  
 15 TATGTTTGGCGTTGCTCATCTTAAGGTTCTTGCTGAATTGAGGAAACAGAGACAAGAAC  
 AG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 123>:

**gnm\_123**

CCAGTGATCTTATTTTCATTATGGTGAAAGTTGGAACCTCTCACGTGCCGATCAACGTCTC  
 ATTTTCGCCAAAAGTTGGCCAGGGCTTCCCGGTATCAACAGGGACACCAGGATTTATTT  
 ATTCTGCGAAGTGATCTTCCGTACAGGTATTTATTCGCGATAAGCTCATGGAGCGGCGT  
 AACCGTTCGCACAGGAAGGACAGAGAAAGCGCGGATCTGGGAAGTGACGGACAGAACGGTC  
 AGGACCTGGATTGGGGAAGCGGTTGCCGCCGCTGCTGCTGACGGTGTGACGTTCTCTGTT  
 25 CCGGTACACCACATACGTTCCGCCATTCCCTATGCGATGCACATGCTGTATGCCGGTATA  
 CCGCTGAAAGTTCTGCAAAGCCTGATGGGACATAAGTCCATCAGTTCAACGGAAGTCTAC  
 ACGAAGGTTTTTGGCGTGGATGTGGCTGCCCGGCACCGGTTGCAGTTTGCATGCCGGAG  
 TCTGATGCGGTTGCGATGCTGAAACAATTATCCTGAGAATAAATGCCTTGCCCTTTATAT  
 GGAAATGTGGAAGTGAAGTGGATATGCTGTTTTTGTCTGTCAAACAGAGAAGCTGGCTGTT  
 30 ATCCACTGAGAAGCGAACGAACAGTTCGGGAAAATCTCCCATTATCGTAGAGATCCGCAT  
 TATTAATCTCAGGAGCCTGTGTAGCGTTTATAGGAAGTAGTGTCTGTCTATGATGCCTGC  
 AAGCGGTAACGAAACGATTTGAATATGCCTTCAGGAACAATAGAAATCTTCGTGCGGTG  
 TTACGTTGAAGTGGAGCGAATTATGTCAAGCAATGGACAGAACAACCTAATGAACACAGAA  
 CCATGATGTGGTCTGTCTTTTACAGCCAGTAGTGCTCGCCGAGTCGAGCGACAGGGCG  
 35 AACTcGmAGTgAGCGAGGAAGCACCAGGGAACAGCACTTATATATTCTGCTTACACACGA  
 TGCCTGAAAAAATTCCCTTGGGGtaTCCACTTATCCACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 124>:

**GNMCG27R gnm\_124**

CAGTAGAGGCCATACCAATTATCGGCCCTTGCTATAATGGATTGGTGGAAGGAGTCCGAT  
 AATCTAACTTGCATCTAATAAATTCAAACCTGGCAGCGAGCCAACCTGCATTGAACCTCA  
 AACATTATGCTATTCATTCTTTACTTAAACTTTTGATCTGAGAAATGTTTGTGTTTTATG  
 TAAGTTGGTCGCCCTTTATTACAAAAGATTTGTTCTTACTTGATAGTTACTATCTATTGA  
 AATGAAACAAGTTCTTATATCACTTTTATGCAGTTTGTAGGAAATGCATTTATGAGAAAA  
 45 TCACAGAGGATGAGATAGAGAGCTGTCCAGTATGCGATATTGACCTCGGGGGGTACCCAA  
 CTGGAGAACTAAGGTAAGTTCTTCTTCTTTATTCTTACACAATTTCTCCTCGGT  
 CTTGGTTTAGCAGTGATTCTTGTATAGACTGTTAGAAGCCTTTTGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 125>:

**gnm\_125**

```
5 TAATTGGAAACGCGGCCAAGAAAGTGAACACGCTTTCTCTACACGTCTTTAACTCCACAG
CTACTTATGACTCACCTGCTTATTTTAATCTCCTCAAAAGTCTTTCCTTTTTTTACAATT
TTTTCCAAAGACTCAATAATTGTGGTATGATATGGAAGAGAGCATTAAATGGCGTATCTTC
AACGCCCCAAGATTTTGCATGTGGCTCTATCGTGATTTCGAGTTTTGATCCATCTCTCTAGG
TATAGAAAGAGAAAGAGATCAAACCAACCTTTAACAACTTATGGACGTAACATATCAC
TTACAAGCCAAGTCAATGATGAAGAAAACATAGACTGATGATGTGAAGAAAAAAGG
10 TAGATAACTTGTGGGATTCTTGATGTTAAGTTTAGAGAAACAAAGTTGAGTCACTTCTCT
CTTTCTATGTATTTCATCAATCTACAACGAGTAAATTAGCAACAACAAAAGGAACAGAAC
AAAACAAAGATCAGAGGGTCTTTGTGTATCAATAGCTCTCATTGTTTTTCATTTCGGAAAAG
ATTGCAACATCGCACGCTGGTTTGAGACCATTTATCACATCACTCTGCTTCACACTCTCG
CACGCAATAACAATTGGTATATGAACCTTAAATCCCAACCAATCAACACTCAGTTTCCCT
15 CTCAAGAACACATCAACCAAGCTTCAAGCGTCTTCTCTTTGTTTGTGTCAGCAATGTAGCA
TCAACATCATACACTTTGGATTTTCTGAGTCTTGTGAGGATCTTCAAGGAGGTAAACATTT
CCCGGGTCTGCTTGAATCCAGAAAGTGTCTTCTTTCCGAGGTTTATGTTCTCAGAAAGAT
ATATCAGCTTTCATAGGACTGTAATATAGCACCGTCTTGTCATTATTATTAGAGAGCTGA
AGCACCGTGTTCAAGTTCGCATTATCAGAAGATCTGTCGATGATTTGGCGATATCCAAT
20 CTCGAGAACTTGAGGTTTGTGACAAGCACCTGAGGTAGTATAGATTTGATTGAAGAGTTT
GCAGACAATCCTACCAACAAGACGATTATAAGGACAACAGAAACAAACATGCAGGTGCAA
GCGCAGCATTTTCTGAAACATCCAGAGGCGCATATTCTCTTGTCCTCCTGACCGATATGA
TCCACAAAGGAACCCGATTTTCTACTCCGATCGGCCTCTTCTTCTCTCGAAAGCCAGAC
AGTCTCGACGCAGAAGGAGGCCGCTTAAAGACGAAGCCTTTTTCGGGTTTTCAACATCA
25 TCAAACCTGTTTCGAGAAATGGAAGGGCTTGAGAATCTTGAACCTCAGATCAAAAGAACCT
TTGCCATAGCTACTATCTTCCGG
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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 126>:

**gnm\_126**

```
30 TATTTTTCCCCCATAATTTAATTCATGAACTGACTTGGATAGTCCGAACCACTAGATTA
GATTCGCATCATACAAGTACAACCTGGATTATAAACTGAAATAGAAATCAACTATAAAA
TTCAAAGCAGGTAATGAACTTCTTCTTTTTTACCTATTGTGTTTCCATATAATTCCACA
AATGACATTTTTTTAACTGGTAGTGAGGATAATAGGATATGATGATTCTCAAATTTGCAAT
ATTTGTATATTGGTTGTTAAAAACATTCGGATAAGTCACAAACATATAAATCAGCATAAC
35 CTTGGAAAAAATTACGTTTGAAATCTAGACTAATACATCCAATCCAATGATTAGTTTGA
ACTACATGCATAATTGCATACTAAATAATGATCAAGTATACTAAATTCTGGAGTTTGATA
TGATTAAGCGmAkstTAAATGTTTCGGCCATGTGAAACCTCGTCTTAGAATAGTTGTCATC
ACGCGATGTTGGCTAACGTAACAAGAATCATCAATCTCGTACCACACATGTTGCACATGA
GAAACAAACAGCCGCAATATCTTGATTACCTTTCTTCTTTTCTCTTTTAACCAAAAAC
40 ATAAGCTGCAATATTCTTAATTCACACTCGGGACCAAAACATGTTAAAGAGTTATTGTTT
TGTCATIGGTATTCAAACCTCGTGATCTTGAAGATTTTTTTTTTCTCTGGTCACAACATCA
TAATCAIGTTATTTTCTAATATTTATGTATACCTTAGAAATAAATAATATAGTTAGGATAT
TTTTTAAGTAATTAATTAACATGCAAAGGATTTGTAGGACGGCATGTAAGAAACAGAAT
CAACTGATAGAACTGCAATAATGCCTGATACACACACACAGCTGTAATTGGGGCTCACG
45 TTCCCAGCTTGCAATAGACATTTTTTTGTTTATCTTATTCATAAAATATATAATTACAAT
ACTAATATCATGGCATCTCATTACCCCTCATATAATTAAAGTATAAAAAACAATAAAGT
ATACCACATTTCTAAAAGAAAAGTACGCATTATGAACTTTATTAACCTCAAATATCGAGTA
TCAGAGTAAAAATATGTCATATATAAGCCATATAGGCTTTTGTGAAATCAACGGCATGT
GTTAATGTTACAGGAATGAATTTGGAATCTTTAAAGGGAAAAAACAATAAATGAAAC
50 TCACTATGCAAAAACCATGTCTACCTAAATTTGGTCACAAACATGTTTACGTGATTAT
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ATTTGCCTTCATGAAGTATAGACCAACAAGACGTCTCAAATAGTAAAGACAGAACGTGG  
 GTAAGTGACAAACACGGTTGCATGTAAAAGGTAGGTACAAACGCTATATCGACAACCAGA  
 TATGGTTGGTGTATATCTGTGTAACTAGTGGTGCATGCTCAATGAAGATATAACCA  
 AAAATAACACTTTTTTCTTATGCTTAAGAAACATATCAGATTTGGTGATAACTTGAAC  
 5 AAAGACCCAAGATATGGATATGAATTTCTTACCTAAGTTTTTAAAGAGTCAAGAAGCAAT  
 GCCTTGTATAAACAAACGAGCTGAAGTGTGCGTCTTTCCAGCATTATCATTGTGGAAC  
 GGGTCTCTACTTGTCTTTCTCCTGATTCTGTCTCAAGATTCATATGTTAGCTTTTTGT  
 ATAATTCTAGGTAATAAACAAATTATCTTAGCAAACAGAATTAAATTTACCTCTGTTTCT  
 TTGGTGACGAGCTTCCATGACCTCCTTGTGGGGTTACATCTAACAACTTAAGAAATT  
 10 TTTATGTGTCTAGTGAACATATTGTAAGAGATGTTAGTGAAGAACACAAAGAAGTGTGTG  
 ACAATGTTACCGGTACATACTCATTTTCGTCTGAGAGGCTCTTTGCAATGGATGATGAGG  
 TCTCATCTCCCTGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 127>:

15 **gnm\_127**

CCCTGCCTTTGCGAACTTGGATAATCGATATTCCTTTTTAAAGATGTGATCTTCGAGT  
 TGGTGAATCTGAAATACAGAAAAACCAAGGAATTAGCAAATAAATAGGCAAAACCCAGT  
 AATTCCAACAAATATGTAGATAAATCACAAATATTTCTCCAACCTCAAACACCAACAACA  
 GAGGAAACTAAGAGATACTGAAAGAAAGTGAACATAAACTTAAGAGATATGATTTAGAAC  
 20 TTCCAAAAGAATGATATGAAACACTGAGTCAATGAACCTCCAAAAGACATACGCTTAGAC  
 TATAATTATTTTATGAATACAACATAAAGGTCAAATGAAAATTCCTTGATAAAAGCATA  
 TATGCGTGTTAGCTGTTATTCCTAATTTAGTTGAGATAAACCACCTCTAATGTTGGACC  
 TCCAGGTGCTTTCCAGGTAATCCCTAAAACGCAGAGACTTTAATGTCAAAGGCACAG  
 TATCACCATCATAAAGTGACGAAATAAGAGAGTTTGAAGACTACCTCTTCTTTTCCCTAT  
 25 GGTGTTCTGTAGAAGAGCGACTCTCAGTGAATCATTGCAATATTTAGGAAATCAGGGT  
 TCAAACCTCTCCTTTTGGCATGGCTGTTCCGGCTTCCAGTAAAACTATCTTCCCGTCAT  
 CAAGAAAGGCGGGCTTAGCTGGTTAAGGAAGGACAAGAAATCAAATTCATACATCTTTT  
 ACTTGATCTCGTGAGGAAAGAAAGAAACAGGTGCACATATCTTATATCAGAAAAGATTCC  
 CTATAGTTCATATCACACCACATGAAATTGTGTAATATTCATAAGAAGTGACATGCTAC  
 30 TTTGATCAAGTCATGTTTTCCATAAATTTCAGAAGGTAGTGGGTTGCATAGATGGTGATT  
 TGTGAATGAAAAGAAAATAAACCTTTTGCATAAGACATTACCATTCCATTATCGTCAGA  
 GAACCTGCTGTTGTTGAAATCTGCAACGTCACAGAGTAATTTCTAGAGTCGCTATATTG  
 TTTGTGCAAGTGATCACTGAAAGTTTGCAGTTTTTGCTTTCTGCCCCCATCTTTAGCATG  
 TATGCCAATTGGAGACCTATAAAGGCTGTCTATCTTGAACATTTTGCTACTTTGAATCAT  
 35 TGTGTCCTGTAAGAGGGAGATGAAAATATCCGGTCAGGAAAAAGAGTTAGAAATGAATG  
 GAAGACAGCTAAAAGATAAGATGACGAGACTTTGTTACCATTCTGTTCTCAAAGTCGTTG  
 AGCCTTCCCTGACATGTGATGTATCTGGTTGACCAGTATCCTTCCATGGAGAGGAGCAC  
 CGGTACACAAAAGTTCTTTACATCACAAAGTTAAATAAAATCACTGATCTATATCTTAAG  
 TGGTACATATTACTGCTAATGTAAGAGAAAACAGTATAAATAAATAAAGGAAAAACAA  
 40 CAAAATGCAACAAGTCCCAAGAAAAAATACTCGTGAATGCTAATCACC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 128>:

**GNMCG29F gnm\_128**

CCATACATCCAGTTCACACAAAACCTGAGTGGAAAAACAACAGAAACCTGACCGGAAGAAA  
 45 GTGGTGAGGATGGTGAAGAGATTGTTATCAGACCACCTAGGGATTTAAGACAAACCAC  
 GGCCAAAGAAGAGGAGAAGTCAAGGAGAGGACCGTGACGTCAAAAGCGGGTGTTCGAT  
 GTAGCCGGTGTAAATCAGGCTGGCCATTTTCAAGAACTTGCACAGCTCCTATATGAAAA  
 CATATGACATCTCTCTTTAGATGTTTTACTTCTCTCTGATCTGAATTTATTATTTCTTA  
 TACTTAGGTTTAGAATATTATTTTCAAAGCCTTCTCTG



5 TTGCATAAAATAATATGACTAATTCGTGAAAAGACAGGTCTTCCCGCCTCTTCGACCTTA  
TTGACCTCATCAACCATCTACTTGGAAATTTACTCTATTATAAAATATCCGTCTCTCACC  
TCTCACTTTTAAACAAAACCTTAAGTTTTCTTAAAGAGTCACTAAGAACTTCTAAGATTTT  
AAAGAATGGAAGGAAAAGGTGGTAGC<sub>g</sub>TGGGAGGAGGGAAAGGTGGTGGTGGAGGAGGAG  
GAATAAGCGCGCGTGGAGCAGGAGGGGAAAGTGGTTGTGGTGGAGGAAAGTGGTGGTG  
GTGGTGGAGGAGGGGAAAAATGGTGGTGGTGTGGAGGAGGAGGAGGAGGAAmGGAGGGA  
10 AGAGTGGTGGCGGTAGTGGAGGAGGTGGCTACATGGTAGCGCCGGGAGCAACCGATCTT  
CTACCATTTCAAGAGATAAGTTTGAGAGTGATACTAAAGGTTACTTTGATAATCTCCATG  
GTAAAAAGTGAGTTTGGTCTTTATTGATCATCTATGGAGAATGGAGTGAAGATGGTTTAC  
TACCAATATATATTATGTAATGAATGAATAAATGATAATTTGCTTTATTGTCTTACCCCAT  
GTTAACTATATGTGTTATCATCAAGAGACTCTAAAACTTGTGTAATAATCAGTGATTGAA  
15 ATGTAAATGTAAAGATTAATTTATCAATTTGGTTCTCACTGACCATATGGATGGGCTTTT  
GAATACATCCATTTCAATTGTTTGGT

[illegible]

TATGAGAGCAAAGCTTTTGTGCGGTTATCACCAAGGACAAAGACATAACCTTTGGGGAC  
AAACTGCAAATAAACATGAAAAGCAAACATTGTTAACAATCTGATACTCAACAAGGATGA  
ACAAGTGGTAAGTAAAGTTGCTCACCATTGGTTCCATTTTCATATGACATTGGTTCTAAG  
ACAAAATCTTCTTCTTGCACAATGTCATTACAAAAGAGCTTCCCATCACGAACCTGCATG  
35 GTACATCATCTACAGGTTAGACAAAATTTGATTAAAAAACAGAAAAAGGGGTTAGGTC  
CATTTCTGAAAAAAAACCTTGAGTCCGAGAAAGCCTCTACACAAAATAATACCGACCGCA  
GGTGAAAAAAGACTTCAATGGGTGAAAAAGATCAATCAACAAGTGGATTGGATATAAGG  
GCTTACTTCAACCCAGTCACTTCACTTCCACTATCCTTTTTATGAATACATCATTGGA  
ACTGTAGCCATATTCCGGATATTCTGCAATTCAAAGGGAGAATATCATCAAATTCCTTTA  
40 GTTTACAAAAGTTGATACATCTGAATAACAAGAACAATGAACTGTGACTTACCAGCAAAA  
TTGGAGGAGCCTTGAAGATTACTATATCTGAAACCTCTGGCTTCTCTGAAAAGTATGAGA  
CCTGACCAACACCAAGGCACACAAACGGTCAGTTTAGTCATAAAGAGACTAAAACAGCCT  
CATTCACAAACCTACATCAAGCAACTAAACAAAGCTCAAGGTGAAGTCTAGCAATCACCT  
ATAGAAAAACCTTCACATTCAATCACATAAGAGTATCATACAACATCTCCATCCTAAAA  
45 CATGCAAGAACCTAATTCAGAACCGGTGAAAAAGTCAACCATCATCAGTATAGTT  
TTATGATTACAATTATACATGAACAGACTCAGAATTACATACCTTCTCCGCCATAACGCGA  
TCACCCTTGTCCAAGGTAGGGTACATAGACGTTGAAGGAATCGACTTTGGCTCCGCAAGA

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5 GCTGATCTAAAAAGGATAGAAACAGTAACCGCCGTGAAAGCAGCCTTAGCATCCTCAGAA  
CAAACACTCAAAAGCTTATTAACCCATCCACTTCCTCCATTCCCTCGATTCCCTTATCATCA  
TCATCATCACAAACTGTTCCCTCCTTATCCACGTCATCAATCACCGGTGGATTCTTAATC  
CATTTCGACCCTTGAAGAAACGGAATAATAGAAGAAGCCTTGAAAGATGAAACCCCCAGA  
ACATTTCATCGTTGACGACTCATGACCCGTCGTTGACTTCAATATCGAGATCAAACCCATC  
ACAAGCGGGCTTTGACTTCCTTCTCCGATGAGCTCCCTCGCGATGCTACCATACATCGAT  
GCAGGTCGATTCCGAGGAGATCTATCGAAATCACGCTTGTGGGGAGAAGAATCTAGGACG  
AACCAAGGATTCAAAGCAGTAACCAACCGGGACCAAC

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 132>:

**gnm\_132**

15 CAGCCATTAATGTTAACATTTCTTTATGTACATTTCTGATCTTTGGTTGTGTGTTTTCTC  
TCATCTATAGGTGCGACTTCAACTGGAAACACTGTTAGCTGAGAAAGCACGGTTGGCTCA  
TGAAAACCTCGATATACACCCGCGAAAACCTCTATCTGAGAGGAGTCGTCGAATATCACCA  
GCTAACAAATGCAAGATGTGGTCTACTTTGATGAGAAGACTGAAGAAGTAACGGAGGTATA  
TCCCATTAAATGTGTCTTCAATGTCTTCTTCATCAGATAACTCTTACAATCCAAATCCAAG  
TTTCTTGGAGCTCAAATGAAACACCACAACAATATCAGTTTCTGCTGTTCTTGTGTGA  
ATCAGACAAGAAGACAAATCGTTGCCTGTAATTGCTCTGTATTGTAGAAATATATATAC  
TCTGTACTCTTTATWTGGGGTGGGGTCTTAAGAATTAGCAGTGAATGtAtTTATTACCCCT  
20 TAATTAACCTAAATAAAAGAAGAATGTTCTATTATTTCCCTGAAACAGTACCATGAAAGC  
TAAAAGTTGAACTGGTGAGTAGAAATTAGTCAATTATTAATGGATATTACCTGAAATTAC  
AGAACAACAATATATATATAAAGCTACATTAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 133>:

25 **GNMCG36R gnm\_133**

AAGCCTTTTGGCTCTTACTGTTGATGAAACGAATTTTCTTACATAATGCTGAAAAGTTGT  
ACATGATTATGCTGAGGTGTGCCACATATGGAAGGTTCTTCCGTAATTTTGTGGCATAG  
TGTGAAGTTAATCAAGAAAAGTCATTTTCGATTGAGAAGCAGTTATGACCTGAATATGTTG  
GCTAGTTTAATACTTTTCGCTGACACCAACAATTTTGTAGAACCTGAAACAAATCTCT  
30 TTAGTACTACACTCTCTTACTAGTTGGTCACCAGTAAGAGCTTTGTTGGTGGCGAACT  
TATTCATTTTCTAAAGAACCCTCTTATGTATTTATTTTAGGCCTGACCACATTTTGCAA  
GACTTGAGAGCCAAATTATTTCTCTAAAACGTAAAAAGGAGAGAGCGCCTGAAGTTGTG  
TCCTCCATCTCATTACCTGCAAAGAGGAAGGAGAGGTCTATCTCGTCTTGGTGGTAAGC  
ACACCCAGGGTTTCAGCACAAGCTGGTACAACAGGAAAAAGAACAAAAGCTGCTACGAGA  
35 AAAGATGTAAGAGGTAGTGGTTCATTCACTAAGAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 134>:

**GNMCG36F gnm\_134**

40 CCATTATTGTTTTTCTACTTGTAAGTGTTTTAGAAATATATTGATTGTAAAGAAAAAATT  
GTTTTTTAGATATTATTTTTTTAATTACAAAATTAGTAAACCTCACTATAAATTAATAAT  
TATTAATAATTATCGATAAATTAATATATTTATGAATATATAGAATTTTTCGTTTCTAATA  
TTATTAATTTGTAGAGGTTTATCGTAATTGTTTTTGGTAAATGATTTAACCTCTTAAT  
TAATCTCCTTATACCATTTACAAGTCTACTTCATGCAGTTTTCAACAACCTGTCATAATTT  
GTGTTTAACAATATTATAAGAAACAACCTTTAAAAAAATTAAACCAACTAGGCATTGGT  
45 TGAAAACAATTACAAAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 135>:

**gnm\_135**

```
5  TACATCAACTCCGTGAGACTTTTGCATTTGCTACTTGGAGCTCTACGGTTACTTCCGTTG
   AAGCGCTCTGCAATGAATGACCTTTTGACTGTTTCTACTACACACGTTTTTGACGTTTAT
   CCTGTTTACCTTTTGTCTTGTACTACAGTGATCTTTGAACCTGAAAGTGTTCCTCAATA
   TATGTTAACTTGATTCCAGTTAGATTGTTTTGGTTTTTATACAAGAGATTGGCCTATG
   GCTGTGGAGTAATGAGTTATACCTTGTTTTTTATGACTCGGTTTAAGAATCTCTTGCGATA
   AAACTGACsAAGCAsACTCTTTTGTGACAAAAAAGTATCACAACAGAGTAAATCAAG
10  ACCTAGACGAAAAGCGAAAAATGACAAAAGCCACAAGAGTTGTGGTAAGCAAAATGTTTG
   GGAACCGCTCGAATCTTTTAAAGCATTGGACATCCATGAGTCCGGCGGCAAATGATGTG
   TAGAAGGGTATGTCACAATCTTTGGAGCAGAATCCGAATGTCGAAGTGAACCATATTCT
   CTACGAAATGAGATAAAACACGAATGTCTGCAGCGATAAAATGGACTTCGTTTGTCTG
   GATTATATTTGAACAGCCTCTTTTCACTGTCATGGAAGAAAAGATTCCCTTGCTTAGAAA
15  CTGTCACTGGTCTACACCACAACCTCCATATCCAAGGGTGAAGAGCTCTAGGAATAAAN
   CAAATGAGTACGTCTTGGTCCATGTATCTTCCGGATA
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 136>:

**GNMCG37F gnm\_136**

```
20  CCTAGAAAATTTTCTTATAGAGATATATACAGACAGTAACAAATAACTTTCTAAATTAA
   CTCTTCTTATCACATATATACTGAAAATGTAACCAAATAACAACTGGATCCAACATCAT
   ATATACGTCAAATGTTTTCCAATTCAAAATCTAACCCAACACAAATTAAGAACGCTAAAT
   TGATCTATAGCTAAATGTCATTACACAAGTAAAAAGAAACCGTTTTGTAAAGTTATAATC
   AATCTGACCATAGTCTAATTTATTTTCGTCACAAATATTTTCTAAACGATGATACTCTTAA
25  ATGTTAAAATTCAATCATATATTTATACCCAACAAAGCGGCTAAGTAAGATAGGAACCT
   TTAACACAACCATAAATAGC
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 137>:

**gnm\_137**

```
30  TGTGTGCTCGCATTACGACATAAAAAATGTAATTTGAGTTTTATTTTCAATTTCTTTGACAAA
   AAAAAAAAAAAAAAGTTTTATTTCAATTTATTTACCTTTTTTATAGATATAAAATATGTAA
   ATCAAACCTTTTATATCGTACAATTTAAGTATATATTTTGTGTTTTATTATGTCAAGTTCA
   TTCATTAATTTTAAATTTGATACAACAAAAGAATAATGTAGAAAGTCAAGTATACAATGA
   TGGATGAATGGATTTACATAATGCTTTTTTGGTACGTAAACGTTAGTATTTGCTAACAAA
35  GTATTAGTTGCGTTATTTTTTTCAGAACAATCAATCCTAATTTTAAATATTTTATTAAA
   AACACTATGATACATATTAATTTACATTATAATTTGTTATTGAAAATAAAAACGGAGCAA
   TTTTGTCTAGGTTTTTTTTTGTCAACCACACAAAAATGGTTTACAAATTACAATGTAA
   CTTTAAAAAATGGTATACAACCTACACTAACCAACCATAGGTACAAGAAACCACACTTGCT
   ATTTTTTCTAGATCCAAATTTCACAATTTAAACACACAAATTTTCTAGAAGGAATCAA
40  TATTTGGAATGCCATTTAATAAACTTTAACTGTTATTTTTAAATATATTGAATTTAAAA
   CGAATTTGAATGTTTGTGTAGTTTTAGACGAACAATAATTTGTCAAGTTAGCTAGGTG
   ATCAAGATAGAAAAAGTTCGTGTGAATCATATTTGTTTCATGAAAATTTGGTGTAGTTT
   ATGGTTATGAGGTTATCTCATATCTATGTATAAAATTAGAATGTAGAATTTGTCTGACA
   TACTTGTTTAAACTTAAATTTATGATACATATATCACCTATTCTTTTTAATTCTTAACT
45  TTATAATCCAAACTGCAAGATCATTTAGGCCCATTTGATTTGAATATTTGTGCTTATGT
   TCACTCAGAAGTCAGAAACCATAACCATATCACATGTCTTTTGTGAAACTCATAAGCCAA
   CTGTGGTAGGGGAGGAATTTGCAACAGTGGTCCTCTCTCTCTCAGAGTTCATCTTCCC
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TTCTTCACAGAAAAAAAAAACCCCTTAAGGATTAAATCTCATCACTGTTTCTTTCTTCTTT  
TAATCACATCTCAGTTTATGTGTGTCAGTGGTCCTCTCTCTACCTTCAACGATTATCCAA  
GTTCTTCATGCATATATATAAAC

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 138>:

**gnm\_138**

ACTAGATACCTCGAATAGTTCCTGTGGAATCAAACCAGAATTAGTAGACACATAATCTTA  
CCAAATGTGAAACAAGGGTGCTAATAAGGGCCTTGTTACAGATCACGATCGAAACAGAGG  
ACACAACGGATAAACTCAAAGCGCCGATTGTTCCAAGCTGGAACCTCTGGGCATCGCTCA  
10 TATTTGCTCGCTTCTTCTATCAGGATCTACGATGATCTAATAAAACCAACAATTACAGTA  
TGGAGGAATCAAACCTCACATCACATGCTTAGCCAATCAAAACCAAAAGTAAGTAAAGAG  
CAACGCGrAGAAGAAAAAAGGAACCTCATTTACGAAAATGCGAGAGAATTCAAAGCAGGA  
GAAGCTGAAGTGCACCAATGGAAGATAATAACAACACGTCAAATTACAAGCAGAACAAAGG  
ATAGTGTAAGTCAAGAATCCTGAAGCAATAAACCTAGATCTATCGATGAAGATAAAA  
15 AATAGTTTAAACGGAGATTGAGGAGAAGAAAAGGAGAGAAAATGGAGAGAGAGACCTTGAG  
AGAATCAGACAAGTTCTAATGGAGGAGAAGAGAATCTGTGAATTTGGAAGAAGAAGCCTA  
TTTTTGTAAATTCGAAGAGATTCACCATACGTCAAATTTGGGCCTATATGTAATTAATA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 139>:

20 **gnm\_139**

CCATCTCTCAAACCTCTTCAACGAGCTTAATGAAGAGAGAATCAGCACCAGGCTCTTCAGA  
GAAGAAGCTGTATATGTCTTCCTCACAGCTGCCTGATTTTCTTATGTACTCATTAGCTAA  
TTTGACAGAGATGAGGACATTCTCTCCTGTCTGAAATCCCATCTGCCGCACTACAAAAGA  
CACAACAACATTTCTTAAATATGCATCATAACTAAGATCAGGAAGATTTCAGGAAGC  
25 TATGTAGATTGATTTTACCAACATAGTGAGAGAATCTCTCAAGCTTCTCATGGCCTTTGT  
GTTTTTGAGACGATCTGAGACGAGGGATGTTCTTGGAGTGACGTAGCTTCCTTAGACGGA  
AGTGCAGTGCAAGGGCTAAGAGTAAGCCAATGGATGAGATTACTAAAATCTGTGCGAAGG  
TCGTCGTGTTGTTGTTGCTGTTAACTCTGGAACACACATTGATCTGGATTGCTTTGGG  
GATCATCAAGAGACATGAGATTAAGATTGTTAGAACTCTAAGATTGGGTCCATTCTTGAG  
30 TTTGTTTTCTGTTACGAGACAATGTATCTGCTTTCTCCACGTGTGTTGTACTAAAATAGC  
TTTGAGTCCTATTACTCCGGAAGTTTCTTAGTTGCTTTTTGTGTGATTGACTCACCAT  
TTTGTTTTAATAACCAAACCTCTCATCCCCAATGTATGATATAATAGTGTGTTGGCAATGG  
TTTTATAAAATCTATTTCGTTAAGGCTATAACATAACAAGAATCTGTC

- 35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 140>:

**GNMCG42F gnm\_140**

CCTGCAAGCAGAGACGTCTAGAGGATTGATTACGTATCCTACAAGTAAGAAATAGAAGTT  
ACCGGCGACATTGATGTTCTCGACGATGTAAAGAACATTGTCTCGTTGATTTCTCCCTT  
CTGCTCAGCTTCAAGGATGTGATCAATGGCACATTTCAATCCTTCACTACCTGTAGGCTT  
40 AGAAGTCAATTTGCTGTGAAGAATGAATCATCAATGTCAATTTCCCAAAATCAAACCTC  
AAAAGATAAACTAAAAATAGAAACAAAAAATGAACCTCACTTCTCTCATCAACAAAGT  
ACTTCTTGAAAAGAGCGATTCTTCGATCTTTCACATCTTGACAAATCTCAAAATAGCCTC  
TGAGGAATGGTCTAAGGATAGGAATGAAATCTCCATAGTTATACTCAAGCTCTGAGCTA  
ATCGACTTCTCTCACCATTCAAAGCCTTAAGCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 141>:

**gnm\_141**

5 CTCTCTGTTTTATATGAGGTATCCACTCGGTCTAATATGGAAACACATAGACCGTAGTTCT  
ATACATTGGTTCAAGTCTTGTGCTTATCAATATGACTGTAAGGTCCCCATAAATGTTTAA  
ACTAAAGTTAACTCTCCCTTTTATTTCCGACTTGTGTACCGGGTGATATCTTATGATCTG  
GGACTTTTTTCGACCCACCGGTGTTGAACCTTAACTACTCTATGTTTTTTTTTTGTAAACA  
GGTAGAGATAACATGTATGGGAGAACAGTGATCCCAACGTTGCAGCTTCACAGCTTAGT  
10 AGACCTATGGTTGGAAACAACCTTCTAAGCATCAAAGAGTCGCTGCGTCAATAGGTTTCATC  
TGCAAAGGAATTTGTAATGGTGCTAGTTTATTCTCGGAAGCTCCCTGAATGCAACAATA  
AAGAGCTATTTCATTGAATCTTTCTAGACCGAGAAGAAAGAAAAGTGCAGGAGCAGTGGA  
ATGTCCTTGTGTAGAAAGAACTTAGCAATTTATATTTAATTGTAATCTTAAATTT  
GAAACATTGGTGTGAGACAGACACTTTGTTTGTATCCAAGAAGATTCAAAAATGGCTT  
15 TTTAAAGGAGATTGTGTCTTTTGGATATTTGAATGTATGATTAGGATAATGTTGTCAT  
TTCTATAAATATTTGTTTCCTTGTGTTGGACTAAATGGAGAAGTACACGGAATCCTTGTGA  
ATCGAATGACTTAGCCATTATTGAGAAGTCAAAAGAAAATAACCAAAAAAACTTGTG  
AAGTGTACCTTTAATACAGAATTAAAGAGAGATGTATAAAAGTTTTCTAACAATTTGT  
TCACCAAAAAAAAAGTTTTCTAACAATTTTAAATACAAAATGCAAAATTAAGATGAAT  
20 TTTCTTATTTCTTTTTTAAACATAATTTTGAAGAAATTTGGTTGTCTTTTGCATTTG  
TTTCTAGATATTTCTAAACTGTTGGGAAATAAAAAAATTTGCACACAAAACATAGTTAAA  
TTCACGTGGTATTTATAGAGATTTACTTCAACCAAATTTGGATTTTGGGTCATTGTTTTA  
TGGACGGATAAACTATCCATTAGTCAAATTTCCACAAAATAATATGTGAATTAGATTCTG  
ACAAGGCTAATCCCCCACACATACGATACTAGAACAAACGTCTCTGACTACTTGACGT  
25 AACAATGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 142>:

**GNMCG44R gnm\_142**

30 TCTTTTAGTTTGGAGATTAGTTGTGCAATCAAAGGAAAGGAACTTCTTGGCGAGTAGAGA  
GAAATGGTGATTGGTGAAGGTGAACTCTTTTTCTCAATTTTAAATTCATTTTTGTTA  
TTTTTAGCAGAAAGTCAAACATTTGACCGAAAAGGAAGAAGAGAGATAAGTCAAATCC  
GGCTGCTGGGCTTATGGGTACACGATCATGTCGTTTCATTTGTTATGCTTGACGAACG  
AAACCACTATATTTGTTAATATTACTTTCTTTAAGTAAGGATAAAACATGTCATTGT  
TTTACAAAAAATTAACGTATAAACATTTCTGGTTCCTGAATAIACTTTTTTTTTTGT  
35 GAAAGGGTTTTCTTATATACTTGAACATAAAAAAGTATACAAAAAAAACAAACAATAAC  
CAGAACTAGATTGGGGAAGAAGACCAACTAAGGTACTTAACAAAAGAAGATATCAAAAC  
CTATATATCTTGATAATGATGGATTCTTTTTGGTTTGTGATGTTAATGATAGTTTTTAGT  
GTAGAACAATAAGAAAATTGACTGAACA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 143>:

40 **GNMCG46F gnm\_143**

CCGTGACTTCTTCTGCGGGGATCTTCACGCTCTCATCCAGAATTTACGCCCATAATCG  
GGTTGACGATTTTGACGCTGGAGTTGAGGTATCCAGATCCTTCGCTTCATGCGTTGCAC  
CAAGCATGTTGGAGTCTGTGGAGTAGGCTTTTCGACAGACATTTTGTAGTCGAAACCGC  
45 AGCAATCATAAATTCAGACATCTCATGACGGCCGCCAGTTTCATCAATAAAGTCAGTATC  
AAGCCACGGTTTGTAAATCTGCAGTTCAGCATTGGTCAGCAGACCATAACGATAGAAACG  
TTCGATATCGTTTCTTTGTAGGTGCTACCGTCACCCAGATATTCACGCCATCTTCTTT  
CATCGCAGCAACCAGCATGGTACCAGTCACGGCGCGGGCCAGCGGCTCGTGTGAATA

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GGTCAGGCCGCCGGTGGTGTATGAAATGCGCCACACTGAATAGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 144>:

**gnm\_144**

5 CTAAACTAAAGTTATGGTCTAAAATCACACTCTCATTTACACAATACTTCTATTATTAAT  
 GTTTGGTTCTGACTACAATCAAACCTTTAGATCAAATTTGTTTCTTGAATCTTGTGAT  
 TCACCACCAAAGTACTTATCTCTATACATGTTTTCAAACCACTCAACAAATATAAGC  
 AAACAAAGATCTTCTTCACTTTGCACATAACCAGAAATGAATTTCTACTAAAAGATGAGAT  
 CTGAGAAAAGATCAAGGAAGGCTTTTTTACCAAGAACAGGAGCAGAGATGGCGACGGTAGG  
 10 CTTGAGAAGGAGAGCCGGACGAGCGGCGGAGACGtGGAAGCGGAGGCAGTAAAGCTAGCC  
 ATTTCTCTATTTGCTTCCCCTAACGACTGAGAGACTCTTCAATTGATTTTTTGTGTTTC  
 TGTTTGTGTTCTACAGCAACAAGAACACTTTTAATTTCTTTGCTTGTGTTGGCTTTTGGA  
 TCAAACATAAATATGTGGTGGATAAAAAATCTGTTGGAACCAACACAAGCCATCTAACTT  
 GGATATGCTTCTATCCATACTCCACCAATCGACGCCCTCCACGTGTCATATTTTC

15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 145>:

**GNMCG47F gnm\_145**

CGAAGCTCTGATGTCCTTCTCTTCTATCATCTCAATCATTGATTCCCTGAAATCTTTCTT  
 TGGATCAACGGACCGCTTCATCACAGCGAAGTCTCCTAGAACATCTTGTTGCTCTCTGA  
 20 TCTTCTAGAAGTGCTTCTACGAGTACCTGAGAGTTGAATTCTAGGTGAATCACTCTTTT  
 GAGGTTTATCCCAGCAGATGGTTTTCTTCCACTAGAACTTGCCCTTTGGTACTTCTTCTC  
 GGCTTTATATTCAATTATCATCTTCACTCTTGAAATTTTACAGAAAAGATGGCTTTTCTG  
 CGGTTTCTTAATCGGCATGCATGCAGTACAAGCTTTCTCTACCGAATCAATCACTTTG

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 146>:

**GNMCG48R gnm\_146**

ATGGCATAGCTATTCAATACAGATCAAATCACTTCACTTGTTACCCTGTCCACTACCAT  
 GCAAATTATCAAAGTAACCTTTAGGATCACTCTCAAAGTTATCTCTTGAAATGTAAGAAG  
 ATCTATTGCTCCCTGGTGCTACCATGTAGCCACCTCCGCCCCACCACCACCGCTTTTCC  
 30 CTCCTCCACCGCAACCACCTTTTCGCTCCTCCACCGCCGACGAGCCTCTTCTCCTCCAC  
 TGCCACCACCACCACCACTTTTCTCCTCCACCGCTACAGCTAACGCCTTTTCTCCTCCA  
 TTCTTTGAAATAGTAGTTCTTAGTTTCACTCTCTAGAAATTTTAAAGATTTTGTGTGAAT  
 GAGAA

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 147>:

**gnm\_147**

ACAACCTCTTCACTATACTATCGCCATATCCATCAATCTAACATCCCTGAGACCAAATTA  
 GAAAGCGAATTGAAGAAACCGCAGAAGTAGAAGAAGCTCACCGACGGAAGTGATGCTCTT  
 GAGCCGATTTCGAAACGAAACAATCGGAGCTAAACAGATAACAATAGCAGCGAGAGGAT  
 40 CAGAATCCTCTGCCAACGACGAACTTGATTCAATGTGCGTAACCTTCTCAGAGAACGC  
 TTCATATATTTTATCTCCGTTGCGCTTTAATCGTTCTCCACGAAGAAGAAGCACATT  
 CCCAGAGGGAAGAACACAGATCTCGGAGATTCTCTGCTTCTTCAACAAGCAATTGAAGAA  
 AACGATGAGCAGATTAGGGTTTTTCAGATTCTTCTGCAATAGGATTCGATAAATGCGAGAG

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TCTGTTTCTACGATTTTCATATCTGGAGATTCAGAGCTTCCTCGTGCATGTTTAGAGACTT  
CTGCTCTTTTATTTTTTTTCGCTTAACTCAGAATTTTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 148>:

5 **gnm\_148**

TTAAAGAATGTCTTTTATTAGTATCATCATCATTTCATCATCAACATCAACTTGAGACATC  
ACATTTACACGCTTGTGCTCACATAATTAATAAATTTATTTTATGGTGAATTTTTTAAAT  
TGGTTGACTAATTGAAATTGTATTTGGTGAAAACTGAAAATCATAAGAACATAACTTTT  
10 ATCTAAATATATATAATTAAGGGAATAGTACAAAAATAATTATAAAACAGAGAATCAG  
TTGCTTCTGATTTCTGACAGATTTCTATCATCATTTTCATGGAGATTTTACTCTTCATCGA  
AATGATAAAATAACTGAAAAATGTAATTAGCGAATTATAAAACAGTAGCAAATGTAAACA  
GTTTTAAAGAATACACAAAAAGGTGACCAAATGGCAATTACAAAAGAAAAATACAGCTT  
CTTTTCCTCGAAGTATGCTTTTTGATTGAAAATATTAAACGTTTCTAAACGGACAAATC  
AATTTAATAAATAAAAAACAAAGTTTTCACAATTCAACTAAAAGTTTAAACATATGTGAATC  
15 TATCTAGGTTAAAGACTCAAAGTACACGTTATAATGrAGTTCAATAGTTTCATTCGATG  
CTTCTTTGAATTTGGTAAAGTGTGAACCTTATCTTAAGTTTTTAGGTAGAAATAATTTAG  
TATAGTAGCACTTTATGTTAAATTAAGGTGATACAGATACACAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 149>:

20 **GNMCG53R gnm\_149**

GAAATATCAAGATGCTGGCGTAACAGCATTCTGGTGGAGAAACGTGGTCGAAACTCAT  
ATAGCGCACGGATTCAACGGTCGCTTTTCAGGTTCTCAATGGTATCCCACGCCAGTTGACA  
GTCGGCAATCTGCGTCAGGAGTTGATGGAAGTTGTCATCAAGTTCAAAAAATCATCCAG  
TTGCTTGCGCTCAATGGCAATGCGTTGCTGGTGAAGATTTTGTTCCAGTTGATAGCACTG  
25 GCTTTCGGTAATCATGCTCGCCGCCCGACGCGCCACCGCGCACTCAATGGCCTGACGGAT  
AAAAC TGCCGTTGCGCACCTGGGCCATGGAATTTTGTTGACGTAGCTGCCACGTTGCGG  
ACGAATTTGAATCAGGCCGTTTTCCGCCAGTTTAATAAAGGCTTCACGAACCGGCTGGCG  
TGACACATTGAAACGAACAGAACTTCTTTTTCCGACAACGGTGTGCCTGGAG

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 150>:

**GNMCG56F gnm\_150**

CCGTGGACAGATCCTGACTCTCACGACATCCGAATTTTCAGAACAAGGTAAAAATGATCT  
TGGATAGAAGCTTGAATCACGGCAAACAGTTTTATCCCTCACACACAAACAAAAATATTT  
AATTGTTAAAGCACATATTTTCACACATATTATAATAACAATTAGGTCAAGAATTTAATTT  
35 TTCTATTTGGAAGTAGATCAATATATAAACAGAAGAAGAAAAATGTTACGTGCCTGTCGC  
CAACAAGTCTGTACATTCTAAAGATGAGATCTTCTTCTTGTTTCGGTCATATTGATAAACT  
CCCATTTCTACTACTCACTTCTGCATTTTAGTTAGTATATAAATTCAAAATATCAGTGA  
AAACGTACATCACAAAACAATTTAATGTTACAGGTCAAATGAATGAGC

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 151>:

**gnm\_151**

CAAGACTTCTTTCTTCTCTGCGTTGAGCTTGTTTATGTAGGTATCAGCGTCTCTCTGAGC  
CAACTCGAGCTCATGTTGTAAGCTCTTCAGCTTCTCCTCAGCGGCTTGCCGATCTCGAG

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CTCATTTTTTCAGAGAATAAGTCTCTTTCTCAAAGTGCTGAAGCTTCTCTTTTCGCGATACT  
CAGCTCTTCCTCCAAGGCTAGCACTTTTGTAGCTACTGCATCTTCTTTAGTGTCTCTTTT  
ATCCAAATCAACACTCTTTTGTTCAGCACCAAGATGATCCTCTGTGTCAAAAGACATGAA  
GCTCTGAAGCTGATTCTTCAGATTAGCAATCTCGTCTTCGTGCATTTCGCATCTTCTCATT  
5 AGCTTCTTTAAGCTCTCCCTCATATGTAGTAATTTTGTGAAGGAGATCAACATTGTTGTC  
ACCATCAACACTTTTCTGCTGGAGAAGGAGCTTCTGTTTCGTCTCTTGAAGCTCAAGCTC  
AAGTTCAGCCATTCTACGGATCAATGCCTCGTCACCGTCTTCATCATTGGCAGAGGAATG  
ATCAGAATCAGAACAGAAATCTGTCAAAGACGATGAATCTTCTCTTTATGGCTAGA  
TTGACGGCGACTCAACTTCTCTTTGGTAGGAGATGATATCTCAAGAGAGCTCTGTGACTG  
10 GATCTCAGATGTATGGTTCTTCTGAAGTTCACCACTAGCTTGATCATAACGCTCAGCCAA  
TGCGCGATACATGCGGTAGAATTCCTCGACAAGCTGGATTAACTCGGGACGTTTCTGAAA  
ATACATCTGAGCTTTCTTTGCAAAAGAGTCTGCGTCTTCTCAATCAGTTTTAACATGTG  
GTTTCACGCGATCATCCATCTCTGAGAAACCAAAACAAGAACAAGAGAGAAAACATCAGAT  
TGTGTTCTTTTGTAGTAAGTGGAGAGCTCAA

15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 152>:

**GNMCG60F gnm\_152**

TCCACCAGCTCAAAGACGTGAGTAAACACTCTAAACCCAAAAACAAAGCTTCTTCTTCTT  
CCTCAAACACTTGTAGCAAGAAGAAACCTTCCTCAGATTCTCTTCTCAACACTCTTATT  
20 TCTCCAACAGCTTAGTAGCTAACAATCCTCCTCACCATAACTCACCAAGAACTCTCTTC  
ACACAAAAAAGATGAGTAAAAGAAAGACACTTTACAAGCCATCCCTTAAACCTTTGACTC  
CTCCTCCTCTTCTTGTATCTGCAAGTTTCAACAAGAGCAAGATCAACGATCAAGATTCTGT  
CTTACAGCTTGTTCCCGGCTATTGAAACCTCCCCTGAGTCTTTTGTGTATAGTTTCTACG  
AAGAGGATGATGATGATGAGTTCGTTGAATTTTCCAACCTTCAAGATCAACACAAAGAACA  
25 AAGCTTTCACCAAGCAGAAGGTCAAAGTGATTGATTCCGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 153>:

**GNMCG62F gnm\_153**

CCAATAGGTCCAAGTAATTTGCGGAAAAGTTAGTGGGCTTTAAATATAAAACATGACTGA  
30 AATTGGGCCGTATTCGACATTTAGTTGTATTATTCTCTAAATATTCAAGAACTCTCAATAA  
AATCACTCTCTGGCGACTCAACGTTGGCCAGAGAATCGGAGAGGGACATTAACCTGCTGGC  
AGACTGGCAGAGTGGCAGTAACCATACGCCGAAAGAGATATTCTCACTTGTCCCGTAAA  
TCAACATCTTTACGAGACCTTCATGCACCTTCGGTTCTTTTATTGTTTCTGGGTGGTTGG  
TGTGGCAAATAGCTAGCTGTACGTTTGAGGTTGCCAAGAACTCCAAAACCTCAGACAGTAC  
35 GTGAGTCTCAAAAAGTTTTTCTCAGCTAGTTGGAGATTTTTAGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 154>:

**GNMCG63F gnm\_154**

CATATTAGATATTTTATCCAGTTGTATCAAGAGCAAGTCCACTGGTCCAGTAGTCCTCA  
40 TTACGGTAGCTTGGGACCTCCTTTTCTATATCTCTCTCTTTACTCTTCGTCAAGTTTT  
CTATATAGTTTTCTCTACCTCACATCTACTTTTTTTTTTCAATGCATTCTCCAACCTCCAAAA  
TCATCAGTTGTAAATAATTTGTCCCCTTCCACTTCCAATACCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 155>:



**GNMCG64R gnm\_155**

CCAAACACATCAATCCTTCTCAGTCCAACATGGTCCATTGCTCTGCTTCTAATATACTGC  
AAAAGCCATCAAGACCTGCTATTTCACTCCTCCTGTGGCTAGTAAATCCGCTCAGGCGC  
GGATTGGAAGGCTCCTGTCTGAAGGGCGAGGGAGAGGCCACTTGCTTCCGCGGTATTGGC  
5 CAAAATATACGGATAAAGAGGTTTCAGCAGATCTCTGGAAAGTATCCTTTATTTGCTTCTA  
GTACTTTTGCCAAATATTTTATTCTGGACAGACTTCTGGTGACTCATTGTTTATCTTAAC  
AAATTCTAGTTTGAATTTGAACATTGTACCTCTCTTTGAGAAAACCTCTAGTGCCAGTGA  
TGCTGGTCGCATTGGTCGTCTAGTTCTTCCAAAAGCCTGTGCAGAGGTAAATTTCCCATTT  
CCTTAGGTGATGTCTTTTCTGTCTTGAATATTTTGTAGAGTTAGTACTGATGTCT

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 156>:

**GNMCG64F gnm\_156**

CCTTTTTGTACATAATTAATTTTATATTTATAAAGAGTATATAAATAACATATGATTTG  
GATACTATTGGTGGATTATTTTGAGGATTTTCAATTGTACACCTCTAGAAATACAAATAA  
15 AATAAAAAATACATTTTGGTCGTAGATTGTACAAGCATTGATTTTTCGATACAAATTTTGT  
CATCAATATCTTCAAGATTTTCCGCGGACAGTCCCGAGACATGCGTTTAACATGTGAGTG  
ACACATCTTAACATGCGTTTCAAGATTCTAGCTCTGGATCTTCACACTGAACAGTTTCGT  
GATGTCCCAACACCGCCACACCCCGGGAACCGAGCGAGCTAGTTAACCTTGAAGATCGT  
CTAGCCTTGGTTAAACAT

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 157>:

**gnm\_157**

ACCACAGTAGAAGCCTAAAGCATTGTGCCAGATATCAAATTCAGGAGTATAAAGGAACTG  
AACCACAACATGTTGAAAGAAAGAGAATAAAGGTGAAACATTTACCTTTGATGAGGAGAT  
25 TGTAGAGTTAACAACAACCGAAGAGGGCCAAAACATTGTCAGAGAAGACTACGTAATGGTA  
GAGATCAGGATCATTATACTTTGTTGCAAAAGCTGCCTTTTTTCGTGATCCAGGGTAA  
ATATTCTGTTGTCAACCGCATGAGAGACAATGAAGCCCTTTTGGGGTAGTCCTTGCTGC  
AAGCTGCATTAAATATGCTGCTTGTCTTCTGCGCCCGAGCTTGTTCTTCGGTTTTATA  
AGTCATGGCTTGGAGTTTGGTAGCAATGGCAGGGCAGTTGTGAAAGGCACGGCTGACCTT  
30 GTATAACGCAACTTCCATGGCCTTCAATCTGTTAGGAGAGCTGAAAAGAAACAAAACATT  
TATGTATGACTCGTCTAAATTAACACAATATTCATTAGATTAGCTTCATAAGTAAAGG  
CCAAAACCTTTTTACAGGATGGAACAGGACTCCCTTTGAATCAATCAGCTGTGCTCACCTC  
TTTGGCAAATATTTATCGCTTGGTAGTATCACCAGTAGCCCGTTCCAGCTCTTTCGTTTCG  
AACTCTCAACTCGCTTACGATTTGGGAGTTATCCAGGTAGGGCCAAATTCAGATAGGC  
35 TTTGCTTGGATAATTTTGTCTCTGATCTCGCTTACCCTGTCATCTGTTGCTCTGTCAAG  
TTGAAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 158>:

**GNMCG68R gnm\_158**

GGGACAATTGTGACTATCCCACCACCATGAATGTGATTTCTTAGTCATAGACCTCTTAA  
CTGCTTCTTGCTCTGAGCCTGAGAGAACATCAGACAAAGTACTAAATGTAGGACCAAG  
AGACTAAACACAAGGATCTAATGAACCTATATAGTGAAGATCACGAAGGTTTCATACCGT  
AGACGAAGCCATGACCGTGGAGTGCAGAGAAAAAACCTACAAGAAAAAGATCAAGAAC  
TTAAGTCATTTGACAAACAAAAGGCAATTTGATGTTCAAAGACTATGACTTTCTCGGATG  
45 TGCTTGAGTTGAACAAAACCTAAAGAAACAAATTAGATGAGATAAGAGGAGAAAAGAGGAC

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ACGTGAAGATTCAACAACCCATTTGTACTTTGTAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 159>:**gnm\_159**

5 CCCCCAACATGAGCACCCTAATTATTATTGCAATCGTAGAACGAACCATTAAAGACA  
TTTTACACAAAAACATCTCACAAAAGCAAAACAAGGGAATATTTCAACAGATTCACAAA  
CATTTATAAAGTCATCTTCATCCTTTTTTTTGTGCAGAAAGTTTAACAGTTCCTTGGTTT  
CATAACGATTATGGAGTGGTTAAGGATGTGCAAGCTGAATTGTCCACCTTCTCACTAGT  
ATCCACTTTAGACTGTCTGGAGGAGGAAGAAGCTCGAAGTTCTGGACCATCTACCAAT  
10 GGTGATCCCCAAATAGGCAATGCCAATATAATCCCGGGACAGCTTCGACGTCCAACACC  
AAATGGCACATACCTGAAGTCATTACCGTTAGCTTCCACGTGCGATTCTTCTTCAAAGAA  
CCTCTCTGGTCTAAACTCTTCAGGCTTCTTCCAGCTGTTGGGGTTGTTTGTAGCCACCA  
AGCATTACAAGGATTTTGCTTCTGCTGGGATAwCGTAGCCAGCGAGCTTCGCATCagG  
AGGTTC

15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 160>:**GNMCG72R gnm\_160**

CATACAGAAGGAAAGGACGAATAATTGTTTTGGAATTTGCATGCATTTGAATTCGAGTAC  
TCATAATCTTCTAAGCGAAAACTTGCGAAAACTTTATCACCTATAAAACATTGAAAATAT  
20 TGAAACCAATGGGTGGTCTAATAGTTTTGAAAATAATGTGTGGGTCAAAGTCACTAGT  
TTAATACTTGAGAGGAATAATTTATGCTCTAAATAATCAACCACAAAATTTTCGATCTTT  
CACTCACTCACAGAAAGGAAAACAATTCATTGCTAAAGCGTCATGACTCAGTTGCTTGA  
ATCCTTAAATTTTTTTTGTGTTGTATGGAAACATCCAAAATCTAACATGGTTTATGAAT  
TAAGTCGCAACTGATTCATTTTATTATGTTTTTCAGTACTATAACGTGTACATTTAAGTG  
25 AAGGACATCACATATATAAGTATACACAACAAGTTATCTAATCCAAGTCCAGAAAGT  
TTTTATTTAATCAACAAAAGAAGCAAGGCTTAACATCGAGTTCCTCGACTAAGTCTGTAA  
AATCCGCTCAAATCGGAAGTAGACACAATCACACAATGGTTTTTT

30

**GNMCG73R gnm\_161**

TAATTCTTCTTCCCAAAGTTTCTTGGTTCCATACTTCCATTAGTTTGTCAAACGATTTTC  
AGGTCAAAGGCCTAATGATCCATTTTATTTTCATTTGCAGTCGAAAAATCCAGTTTTCATT  
AGTCATCCTTCTCCTTGGTGTGGAATTGCAACCGTAACAGATCTCCAGCTTAATATGCT  
GGGTTCTGTCTTGTCTGCTACTGGCTGTTATCACAACTTGTGTTGCCCAAATGTATCCTA  
35 TGCTTATATTCTCTTCCCCTTTCCATATGTCTTCTATTAGCCAGTGGTTCAGCTAAATA  
GTAGTCTTTGTGAGTCGTTGCTGTTATCTTAACCAGTTATATACAGATGACCAATACG  
ATCCAGAAGAAATATAAGGTTTCATCCACCCAACCTTCTGTTATCAGTCTTGCCCATATCA  
AGCAATCACACTTTTTGTTACTGGCCCATTTTTAGATGGTCTCTTAACCAACCAGAACGT  
GTTTGCTTTCAAATACACGTCTCAAGTTGTGGTGAGAATGAAGCAATATATGTGGA

40

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 162>:**GNMCG73F gnm\_162**

GATATATTTCTCTGGTTAAGAATTTGAATGGTTGACAAAGAAACGGTCACTCTATATACT

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TAGAAAAATATAGTCATACATAGACACCATCGGTCTAGTTATAATAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 163>:

**GNMCG78R gnm\_163**

5 ATATTGCTTCCTCTTGCAATCATAATGTAATACATTGCTAAATGTAGAAAAATATCTACA  
AACAAACACCACAGCGATTCCAATACTAGATATTGGTGACTTCTTGAGTATCATAACTTG  
TTCCCATATATCAATTTAACATTTTAGCATTCAAATTAGTTATGAAGTTTCAATTATT  
CTTGCTGGAGATAAATTTTATTACTAGGCATAAATCAATCACAACGTGATATGTGCATG  
10 CTTAGTTAATAGAGTATCTATCGAAAATTCGCTTTTTTTAATTAAAGTAACGTATATCAT  
CATCATTATTAAGCGACAAACGAATTTAGACATTTTACCATCATTTACAAGATAATTGGT  
GATAGACGAATCATACGTTACTTTATAGATAGTATAAAATAAAATTACGCCAACTCGTCT  
ATTGCGCTTGTTTTAGTAACATATGTTAGATGAATTGGCCACGTTGAATCTAATTCATGT  
CTGCTTTTTGTAGAAAATCGACAAGTAGATAATTATTTCGTCACAATGACCCAAGATTCA  
AACCTAATTGAAATAAAACCCCTAGTAGTA

15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 164>:

**GNMCG80F gnm\_164**

TATAAGTACTCAAATATAAACTCGAGACGACAAAAAAGTTATGCACAAAGAGTATTATT  
GATTGTATATGTTTTAAAGTTTTTCATTGTCTACCATGTACTATATGGTGATTCCTTTTT  
20 TGTATTTAATTATAATGTATGTACTACATCTTCTTTATTGGTACATTGATTATTTCTCAA  
AAGCAAAGTTCAAAATTTTAGATGCACGTTCAATAAAGTTACATTAGTATTTGAATTA  
AGGTTGTTTTAAAGGGTTTTCAAAAACAAAAAACAACGTATGCCGAATTCGTTGGTC  
TATCATATGGAGAAAAGATCTTCAATTCGGATAGACCAACCCGCCAATAGTTTTGAACAT  
TTTGCAAAACATTGCCGATTGTTTTGGACTTTGGGTTTGATAAAGGAAATTCCAATTACG  
25 ACAAAAAAAGGAAATTCCAATTACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 165>:

**GNMCG82F gnm\_165**

CCCAGGACATTCATTTCAATGTTTAGGATTTGGATTGAAGCTCTGCCACTTGGGTTT  
30 AGTAAAAACCACATTGAGATTGCTGGGTAATTGAGTGAATCTGTCACCACATGGAATACT  
ATTTTATCCGTTTCCTGCAAGCAGTAATATCATTGTGTTAAAAGACATGTGGCTTCAGCAG  
AGATTCCGAAAAGAGCATTAAAAACACAAGTTTGGATCGGGAATCTTGCATTAACAAGTT  
TAAGATGCTTGCAACATGATTTAAAATGATACCTGAGTTTTGAATTAACAAGTGTAAGAT  
GCTTGCAATATGGGGCATAAGTTTTGAATCATGAAAACATAAAACAATGCAAGGTTTCTC  
35 AACTGTAATTTAAAAAAGATAAAGTTATTCAGTGAACAAAGAGCACACAAAATGTAAGT  
TCCTTTTCCTAGTTTCATAACTAGACAAATATCCTATATATGGTACTAACCACAGTnGn

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 166>:

**GNMCG85F gnm\_166**

40 CCGCAAACCTTCTGGTCCAGAAAATGGTAAGTATATGCTTGTTATGACTTCCAGCAGTCA  
TAATTGGAGTCAGTTTATGAACCATTTATTTGCTTTATCGCTCAGAACCATGACATGTAA  
TTTCACTTTGCATTTTTCTTGTGTTGTGTCACCTGTTAACGGAAAAAGGAATGCAAGATCT  
GGATGCTGATTTTTACAGCCTTAAGGACAACATGTCCGAGTAGGTAAGGTCGTCAAAC

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5 CATTATCTATGAATATGGTCCTCTTCTGCTCATGTTGTATGTGATAATGCAGGAAGTTCA  
TTTAACCATATAGCAGAACCTACTTCTCTAAGAGGCAAGCCAGTTTCTTTGTTTTTGC  
TTTCATATAATGCCACTGCACAAGTTTTCTTTCTCAGCATGTATATCATCTTGGTTATCT  
TGCTAACAGAATTGCACATTTTCATAGAAATTTTGATGCTTTACTTTCTTACAGGACTTT  
GTTTAGTATCCCTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 167>:

**GNMCG87R gnm\_167**

10 CTCGGAATTCCATTAGTTCATTCCACGGACAAAAACAGAGAAAGGAAACGACAGAGGCCA  
AAAAGCTCGCTTTCAGCACCTGTCGTTTCCTTTCTTTTCAGAGGGTATTTTAAATAAAAA  
CATTAAGTTATGACGAAGAAGAACGGAAACGCCTTAAACCGGAAAATTTTCATAAATAGC  
GAAAACCCGCGAGGTCGCCGCCCGTAACCTGTCGGATCACCGGAAAGGACCCGTAAAGT  
GATAATGATTATCATCTACATATCACAACGTGCGTGGAGGCCATCAAACCACGTCAAATA  
15 ATCAATTATGACGCAGTATCGTATTAATTGATCTGCATCACTTAACGTAAAAACAACCTT  
CAGACAATACAAATCAGCGACACTGAATACGGGGCAACCTCATGTCCGAGCTCGCGAGCT  
CGTCGACAGCGACACACTTGCATCGGATGCAGCCCGGTTAACGTGCCGGCACGCCCTGGGT  
AACCAGTTATTTTGTCCACATAACCGAGCGCAAAATGTTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 168>:

20 **GNMCG88R gnm\_168**

25 TFCAGTAACTTCAGCACGTTTCATCGTCATTGGAAAGACATCTCCTGTCACTTATCAGG  
TTCTAGGACATCTAAAAACATGCTTAGTGTTAGCATTTGGGTATCTTTTGCTGAAAGACG  
CATTAGCTGGCGCAACATTCTTGGTATTCTTGTGCGCGTGATTGGAATGGTGCTTTATT  
CCTATTACTGCACACTCGAAACCCAACAGAAGGCCACAGAAACATCAACTCAATTGCCTC  
AGGTAAATAGTTTCACCTTCCCTTTTGGCACAAATGTGACTCAACTTCATTTTCATTATATG  
CGTAACGAGAAAACAAGAGTTGAGAATTGATGTTGTGAATGTGTCTTGTCTCAGATGGAT  
GAAAACGAGAAAGATCCGCTAGTTAGTGCGGAAAACGGGAGCGGATTGATATCAGACAAT  
GGAGTGCAAAAGCAGGATCCTGTATGGAATTCAAACAAAGATTTTCAAGCGTAGAGCTGG  
AGCTCGATATCTGAAATCTGTTGTAGTATCAGATTTTCATAGGTTTCCGTTTGTCAACTTT  
30 GATATCTCTCTTAGAGAGAATCTACAGCTTCCCTTTCAAAGGAAGGGGGGAGAGGATTAG  
AGGAGGAACAGCTTTTGTGTTGATCCATTTTCATATAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 169>:

**GNMCG90F gnm\_169**

35 CCTGAATGTGCATGCAGGGGTCCACTTCCAATAGAGAACATCCTTGAAGATCTGTGTTT  
CGGTACTGGCCACCGAGCAAAGTATCAGACACCATATACCACGACCAAGCTATCACAAGG  
GGAACTGTTGCAGTTTCATGACAAAAGAAAGTTGGATTTTTCTTAGGATTAAAGCACAAAG  
ATTGTGCAAAACAGTCTGGTCAGAATTGGGTAGACTTGGAATTGAAACTCAAAACCGTT  
ATGATATCTGCAGATACATACTGTATCATCGTTATGGATCGCATCTGGTTCTTAGCTGAT  
40 GGTGCGGAAGCCGAGATGTTACGTGTACAAAAGGAATGGAAGATGCAAAGAAAAGGAAA  
CGATTTACTGTGATTGTTATGTGTGAAAACCTGGAnCAGATACTGTAGTAAAGCCATAA  
AGGCAACTGTTAAACAAAAGTGTGATTTTTTGTGTTATGAGTTTGTACTATAGAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 170>:

**GNMCG91R gnm\_170**

5 GGAAGCCAGTAAGGATATACGGCAGGCATTGAAGAGTTTCGCGGGGAAGGAAGTGTTTTT  
TTATCGCCCTGAAGAGGATGCCGGCGATGAAAAAGGCTATGAATCTTTTCCTTGTTTTAT  
CAAACGTGCGCACAGTCCATCCAGAGGGCTTTACAGTGTACATATCAACCCATATCTCAT  
10 TCCCTTCTTTATCGGGTTACAGAACCGGTTTACGCAGTTTCGGCTTAGTGAAACAAAAGA  
AATCACCAATCCGTATGCCATGCGTTTATACGAATCCCTGTGTGTCAGTATCGTAAGCCGGA  
TGGCTCAGGCATCGTCTCTCTGAAAATCGACTGGATCATAGAGCGTTACCAGCTGCCTCA  
AAGTTACCAGCGTATGCCTGACTTCCGCCGCCGCTTCCTGCAGGTCTGTGTTAATGAGAT  
CAACAGCAGAACTCCAATGCGCCTCTCATACATTGAGAAAAAGAAAGGCCGCCAGACGAC  
15 TCATATCGTATTTTTCCTTCCGCGATATCACTTCCATGACGACAGGATAGTCTGAGGGTTA  
TCTGTACAGATTTGAGGGTGTTTCGTACATTTGTTCTGACCTACTGAGGGTAATTTGT  
CACAGTTTTGCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 171>:

**15 GNMCG93R gnm\_171**

TACATAATGCTGAAAAGTTGTACATGTATCAAATTGAAAAATTGATGATGCAAAGTTATA  
AAGCAAAACAAAGTAATGCACACTTACCTAATGTCGAAATCTAGGTTCCCTTAACTTTG  
ATACGAAATCAAATTTTTTCAAGAATACATACTTACCTAAAGTAAAAGTAGACGGTTCT  
20 TTTGAAATTAGATTTTTCCGAAGAAACCGAAAGTATCTTTGTTAGCCATTAAATCATGT  
AGTAACATATCTCTATCCTATCGGTAATGGATGAGGACCAAGAGCGAAGTACCATGTACA  
AAATTAGTTCAATAAACGTAAAACCTCAATCAATTAATAATCGATGAATTATTATTTTTT  
ATATATTAATAATTTTTTATGACATAAATGATATAAATCAATAAAATAATTTTAAGAAGT  
CATTTTTGAAAATCTATGTAAAC

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 172>:

**GNMCG93F gnm\_172**

TTATTAATTCTTTTTTTGCGAGTCTTCATATGCAAATCCGGACCAGTCCCTCTCTAATCGA  
AGAAACAAGGATGTTGATGAACCATGGGATTCCAAATTACATCTTTGGAAACCTCTAAAT  
30 TTTCTTGTGGATGTGGCAAACGGAACAAAGGACCCAAAATCTGAGCTTGGAAACGCATCC  
CACAATGATGTTCAGGGGAGTAAACCAAAACAAAGGATCATAAAAGAAAGTGTAACCTC  
GAGGAAGAGATCAGCAATAACGGTGATCCTACAACATCAGAACTGCTACACTTAAACGA  
ACGCGTCGGACTCGTCGAAAAGGTCATCTACTTTTGGTGATTCTAGAATTCCACTGTTA  
CCAGGTGCAGCAAGCCTAAAACAGGAGAGGAGAAACGGTCATGTTTGGTTCTCACTTGTA  
35 GCGTCAAGTAATCAGTGAGATTCCTGTTCTGTATCTGAGACTCTGAGTACTTCTGATATT  
CAATATTTTCTGTGTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 173>:

**GNMCG94R gnm\_173**

40 GTCAACCGCATTGAGAGACAATGAAGCCCTTTTGGGGTAGTCTCTGATGCAACTTGTGCC  
ACATATGGAAGGTTCTCCGTAATTTTTGTGGCATAAGTGTGAAGTTAATCAAGAAAAGTC  
ATTTGATTGAGAACGTTATGACCTGAATATGTTGGCTAGTTTAATACTTTGCTGAC  
ACCAACAATTTTTTGTAGAACCTGAAACAAATCTCTTTAGTACTACACTCTCTTACT  
AGTTGGTCACCAAGTAAGAGCTTTGTTGGTGGCGAACTTATTCATTTTCTAAAGAACCACT  
CTTATGATTTTATTTTAGGCCTGACCACATTTTGCAAGACTTGAGAGCCAAATTATTTCC  
45 TCTAAAACGTAAAAGGAGAGAGCGCCTGAAGTTGTGTCCTCCATCTCATACCTGCAAA

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GAGGAAGGAGAGGTCTATCTCGTCTTTGGTGGTAAGCACACCCAAGGTTTCAGCACAAGC  
TGGTACAACAGGAAAAAGAACAAAAGCTGCTACGAGAAAAGATGTAAGAGGTAGTGGTTC  
ATTCACTAAGAGAACAGTGAAGAAGGAAGAAGAATTTGGAG

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 174>:

**gnm\_174**

10 GCCCATACGGCAGCAAAATTGCTTTGCGGAATGCTGAAATTGATGTTCTTCAGAATCGG  
GCGGTCGCCATACGCGAAGGCGACGTCTTTCATTTGATAAAGGGGGGCAATTGTGGTGG  
GCAACAAAGCGATGGGCGTTACACCGAAAAACGAGCGCGTGATTTCCAACGTCGTCATG  
15 ATGGGCATGGGCGAGCCGATGGCGAACTTCGACAATGTCGTTACCGCCTTAAGCATCATG  
CTGGACGACCACGGCTACGGTTTGAGCCGCCGCCGCTAACCGTTTCCACTTCGGGTATG  
GTTCCCAAATGGACAGGTTGCGCGATGTCATGCCGGTGGCTTTGGCGGTTTCCCTCCAC  
GCTTCCAATGACGAAGTCCGCAACCAAATCGTACCGTTGAACAAAAAATATCCCTTGAAA  
GAATTGATGGCCGCATGCCAACGCTATCTGGTCAAAGCACCCAGGGATTTTCATCACTTTC  
20 GAATACGTCATGTTGGACGGAATAAACGATAAGGCGCAACATGCGCGCGAACTGATCGAA  
CTGGTCACAGATGTTCCCTGCAAGTTCAATCTGATTCCGTTCAATCCCTTCCCAAACCTCC  
GGATACGAACGCTCCAGCAATG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 175>:

- 20 **GNMCH55F gnm\_175**

TATCCATTTAATGTTCACTTTTGAAATATGTTTTTGGTGGTTAAGGAATTTTAGGTGAAT  
ACATGTTCAAGTATTTTTAAATGTGTTTCTTCATTGTATTCTGGCTTGTGTAGTCTCTGGTG  
AGACGCCTACTATATTTGGTATCCTTGCTCTTTTTTACTTATTGTATCTTCTTATCTTG  
25 CTGTTTTTAAGATTTTCTTTTCTTTTTCTTAGACAGAGTTTCACTCCGGTCTCCAGGC  
TGGAGTGCAAATGGCATGACCCTTTGGCTCACTGGCTCACGGCCACTTCTGCTATTCTGC  
CGCCTCAGCCTCCAGGGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 176>:

**GNMCJ01F gnm\_176**

30 CGTCATTATGGATCTTGAATCCTCTTCTCGGCAGGTTGCAATTAGCGAGTGGGTAGTATC  
ACCAACAGCGCGAAATCCGCGTCTGATAATGGATATGTTCTGATATAACGTGTTAGTAGG  
CACACGCATACCTTCTTCTCCCAGACTCTGGTGAAAAAATCTTGTGTGCAACCACATC  
AGGAAAAGCTTCAAGTAGAAGTGATAAACATCGACTGGCTGGCGTTGTCAAGACGACGTT  
AAGATCGGCGTTATGTACCGATATTAATTTTCGGTGCTCAGGCCAGAACTCGATATTATC  
35 GTTAATAATCCAGTACATACGTCAATAAACACTAAATCAATCGAAATGGAGATCACATAG  
TTTGCTAAGTATATTTGGTATTTACGGCATAAAATATATATTAATTTTATATTTATCATGAT  
GATTGAAATGAGGCTTTAATGTTGCAACGTAAACTTTACGTAAATTAACATGGTTAACA  
TTTATGCCACTATTGTTTGTAATTCATATTTTCGTAATGCTTCTGAATTTTTCGTGTGAT  
GGTTTTAATACTATGGTGTCTTACTCTTGAGGGGACGGCCTATTTATAAAATACGGACAT  
40 TTCAATAAATGCCCCGTATAAACAGAGTATGATTCTGGCTGGTCGTTGAGTATCAATGTTG  
GACCGAATGTGAACGAGTAAATAAATTCGGGTATTTTACCACCCATTCTCTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 177>:

**GNMCJ02R gnm\_177**

GTACCCCATTTCTCAATAGCGTTGCCGGGCGTCACGATATGGACAGCCTCGCGGAACGATT  
 GGTGAAGCACAAAACCATCACTTTTGAAGAGATTGCTGGTAAAGGCAAAAATCAACTGA  
 CCTTTAACCAGATTGCCCTCGAAGAAGCCGGACGTTACGCCGCCGAAGATGCAGATGTCA  
 5 CCTTGCAAGTGCATCTGAAAATGTGGCCGGATCTGCAAAAACACAAAGGGCCGTTGAACG  
 TCTTCGAGAATATCGAAATGCCGCTGGTGGCGGTGCTTTACGCATTGAACGTAACGGTG  
 TGAAGATCGATCCGAAAGTGCTGCACAATCATTCTGAAGAGCTCACCCCTTCGTCTGGCTG  
 AGCTGGAAAAGAAAGCGCATGAAATTGCAGGTGAGGAATTTAACCTTCTTCCACCAAGC  
 AGTTACAAACCATTCTCTTTGAAAAACAGGGCATTAAACCGCTGAAGAAAACGCCGGGTG  
 10 GCGCGCCGTCACGTCGGAAGAGGTACTGGAAGAACTGGCGCTGGACTATCCGTTGCCAA  
 AAGTGATTCTGGAGTATCGTGGTCTGGCGACGTGAAATCGACCTACAGCGACAAGCTGCC  
 GCTGATGATCAACCCGAAAACCGGGCGTGTGCATACCTCTTATCACCAGGCAGTAACCTGC  
 AACGGGACGTTTATCGTCAACCGATCCTAACCTG

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 178>:

**GNMCJ02F gnm\_178**

CCTGACIGACGGAGACGACCGCTTTGACTAATTTGAATTATCAACAGACGCATTTTGTGA  
 TGAGTGCGCCTGATATTCGCCACCTACCTCCGATACCGGAATTGAAGTGGCTTTTGCAG  
 GCCGTTCCAAACGCAGGTAAATCCAGCGCGCTGAACACGCTGACTAACAGAAAAGCCTGG  
 20 CTCGTACCTCAAAAACCCAGGGCGCACCCAGCTTATCAACCTGTTTGAAGTGGCTGACG  
 GCAAGCCTCTGGTTGACTTGCCTGGGTACGGTTATGCGGAAGTCCCGGAAGAGATGAAGC  
 GCAATGGCAGCGTGCCTCGGCGAATACCTCGAAAACGTCAGAGCCTGCAAGGTCTGG  
 TGGTGCTAATGGATATTCGCCATCCGCTGAAAGATTTGGATCAGCAGATGATTGAGTGGG  
 CGGTAGACAGCAATATCGCCGTTCTGGTGCTGCTGACCAAAGCGGACAACTGGCAAGCG  
 25 CGGCACGTAAAGCGCAATTTGAATATGGTGGCTGAAGCTGTACTGGCGTTTAAACGGTGATG  
 TGCAGGTTGAAACGTTTTCTTCGTTGAAGAAACAAGGCGTGGACAAGCTGCGGCAGAAAC  
 TGGATACCTGGTTTAGCGAGATGCAGCCTGTAGAAGAAACGCAGGACGGCGAATAATTTT  
 CTTGCCTTAATGCTTGTGCCGGATGTGGCGTATCCGGCCCGTAAATTCA

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 179>:

**GNMCJ03R gnm\_179**

CCCTCCCTAGTAGCTAGGACTACAGGCACACATCACCACATCAGGCTAATCTTTTAATTT  
 TTTTGTATGGGGGGGGGGTCTCACTACATTGCCAGGCTGGCCTTGAACCTCGGCCTC  
 AAGCAATCCTCCTTCTCAGCCTTCCAAAATGCTAGGATTAGAGGTGTAAGCGACCACAC  
 35 CTGGCCAGCAAGGTTGGGATATTTTAAACAGCCAAAGTATTTCCAGTTCCTCAAGGGCC  
 TTCATGAAAAACAATTTAAGTCCAAACAGAATTAATTTTAACTCACTGTAGTTTAATAA  
 TGAAGCGCACCGTATAAGAATTTTAGAAGGAAAGTCTGTGCCTAATTAACTCTGGCAAT  
 AAAGACAGAGAAGTCTGAAGGTAGAGAGGCTTCTCATGGTTACCCAGTGTGAGACTCTG  
 ATTCCTGGAGACCACAATTATGCACCAGGCAGAGGGAATTCTACTATGCATTTGAGACTT  
 40 TGATTATGATGTTGTATAATGGACATTATGCACAAATCTCAGAGCTGGATTCCAGGAAAA  
 GATTGATTGGCATTCCCCATCCTCCAGCCCCATCTGCTTTCGTATGTATTCCCCACACC  
 GAGCTCATTTCCGCTCTCAGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 180>:

5  
10  
15  
20

AAAGCTTTACTGGGACACAGGCATGCTCATTATCTATTGTCTACAGCTGTCTTCAAGCT  
GCAGCGTCAGAGCTGAATAGTTGAGGCAGAGATGGTAGCTTACAAAGCCTAAAAATATTTA  
CCTGGTCCTTTACAGAAAACATTTGCCAAGCGCTCTTCTAGTCTAAAGTACCTGTAATAT  
CCTTTCTGCCTGGGTGCAGTGGTTTATGCCTGTAATCCCAGCACTTTGGGAGGCCAAGCC  
AGGTGGATCTGTTGAGGTACAGAGTTTGAGACCAGCCTGGCCAACATGGAGGAATCACAT  
CTCTACTAAAAATACAAAAATCAGCTGGACATGGTGGCAGGCACCTATACTCTCAGCTAT  
TCAGGAGCTGAGAGAATCACTTGAACCTCTGGAGGCAGAGGTTGCAGTGAGCCGAGATTGT  
GCCACTGCACCTCCAGCCTGGGTGACAGAGTAAGACTCCGTCTCAACAACTATTTTTATTT  
TCTTCATAGCCGCTACCATGATCTAAATTTCTAAGTTCTCTCTCTCTCTTTATTTACTTA  
CATGTTTAAAAAATTTGTCTCCACCAACACTCCCAACAATAAAACAATAGGGCCGTAAGAG  
CAGAGACTTTGTTTTGTTTCCTTCTCTATCTTCAGCTATTGATACATAAATGGGCTTTTAA  
AAAGTTTATTCTGTTTACATTACTGACATTAAGGTTTAAACAAATTGAAGCTATCTGAGA  
AATTGTTTGTATTGCTAAGCTATATAGCCATTCTTTCTATCGCTGTTTTGTTTGTGTTGT  
TTGTTTGTGTTGCTTGTGTTTGGCACAAGGTCTCACTACATCACTCAGGCTGGAATGCAGTG  
GCACAATCCCAGCTCACTGCAAGTTCTGCCTCCCGGGCTCAAGTGATTCTCCACCTCAG  
CCTCCTGAGTAGCTGGGACCACAGGCGCACGCCACCACACCTGGCTTTTGTTTTTTTGTT  
TGTTTGTGTTTGGTAAAGACAGAGTTTTGCCATGTTGGCCAGGCTGGTCTCAAACCTCCTAA  
CCTCAAGTGATCTGCCCGTCTCAGCCTCCCAAAGTGCTGGGATTACAGGTGTAAGCCACC  
GCACCTTGCCCCCAATTTCTTTTCTTTTCTTTCTTTCTTTTCTTTTTTTTTTTTTTTTGA  
CAGAGTCTCACTCTGTGCGG

GNMCJ04R gnm 181

25 CGGCGCATTCTCAGCCGGAGTACCGCAAACCTTGGCCCGTTTCGTGGCTGATATTCACCACT  
GGCAAAATCTGGATGACTATTACAACCAGTACCGCCAACGCGTAGTTGTTTTGCTTTCTC  
ACCCCGCCAACCCGCGCGATCACACCAATGTTTGTATGCACGTTACAGGTTATTTTTCGCC  
CGCATATTGATTCCACAGAACGCCAGCAGCTGGCTGCGCTTATCGACAGTTATCGCCCGTG  
30 CGGAGCAACCACTTCTTGCGCCGCTGATGCGTATCAAACCTATATGGCGCTTTATCCTG  
ACGCTGGCTTTTCAGGCGACGCTATTTTCGAACCTTGGCCGCGTGTGAATTAACCTTGCGCC  
ATTGAGGCTCTTATGACTACCCATCTGGTCTAGAATAAACACAAATATACGTCTGCACG  
ATAATCTCGCACTGGCTGCCGCTGCCGCAATTCTGTCTGCACGCGTGCTGGCGTTGTATA  
TCGCTACACCACGCCAGGCTGTGACGCATAACATGTGAAACGTAAAGCTGAACCTATCA  
ATGCTCAACTGAATGGGCTACAAATAGCGCTTGGCGAAAAAGGTATTCTTTATTGTACC  
35 GTGAAGTGTGATGACTTTTTCGCCAGTGTTCGAAATAGTTAAACAGGTGTGCGCGGAAAACA  
GCGTTACCCACCTGGTTTTT

GNMCJ04F gnm 182

40 CGGCGATCAACTACTCCATCAATGCATATATTGAAGTATTTGATCAAATTACCTGGGGCG  
CACTGGCGTGTGTAGGACTGGTACTGATGATTTGGCTGTATCAGGCCTGAAATTAGAA  
ACCGCGCGCTGGCGCTGGAGTCTTAATAGGCCAGCACCGATGCCTGATGCGACGCTTGAC  
GCGTCTTATCAGGCCTACGTATTTCTGCAATTTATTGAATTTGCACAAATTTGTAGGCT  
GGATAAGGCGTTACGCGCGCATCCGGCATCTGGGCTCGATTGCCTGACGCGTCTGTTATT  
45 TCCCCTTCCGCGCCGCTCATACGCTGCCAACGTTTGTACICTCGCTTCTTTGTGCTCGA  
CTATCGGTTGCGGATACCATCCAGCGTACACCTGCTTTCTGCGCCCACTTCCACGGCTCAT  
GCACCATTTCCTGGCAATCGCGCAGTTCCGGTAGCCAATGGCGGATAAACTCGCCCT  
CATGATCAAATTTCTCGCCCTGGGTTGTGCGGTTGAAAATACGAAATACGGCGCTGCAT  
CGGTTCCGGTTGAAGCGGCCACTGCCAGCCACCGTTATTGGCTGCCAAATCACCATCAA



TCAGCTGCGACATGAAATATCGCTCGCCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 183>:

**GNMCJ05F gnm\_183**

5 CCCAGCTACTTGGGAGGCTCAGGTGGGAGGATCACCTGAGCCAGGGAGGTTGAGGCTGCA  
GTGAGCCATTACTGTGCCACAGCACTCCAGCCTGGGTGACAGAGCGAGACCCATTTAAA  
AAAAAATAGTCTTTAACTAATAATAATACCACTACCTTGCATCTGTAAAGGGCCACCT  
TTTCCAAATTTCCCCTTCATATGCCAAGCTGTGTAAGAAACAACCTCTTGAGATTTTGTAG  
10 GGCAGCTACTATTGATTCCACTTTACAGCAAATCTGAAGCCAAGGCCAGGCGCGGTGACT  
CACGCCTGTAATCCCAGAACTTTGGGAGGCCGAGGTGGGTGGATTACGAGGTCAGGAGAT  
CAAGACCATCCTGGCCAACATGGTGAAACCAGTCTCTACTAAAAATGCAAAAAATAGCTG  
GGCGTGGTGGCACATGCCGTGAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGCT  
TGAACCAGGGAGTCAGAAGTTGCAGTGAGCCAAGGTCGTGCCACTGTACTCCAGCCTGGC  
CACAGAGCGAGACTCCGTCTAAGAAAAAATCTGAAGCCAAAAGAAGAAAGGT  
15 CACATTTCCAAATAAGCATAAGAATTTTATCTCATCCTAAGCAAGAGACTCTGTTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 184>:

**GNMCJ06R gnm\_184**

20 ATGGCTTGTAATGTAATATATAAAAAATCCATTGAATTGTAACTTTAAATGGGT  
GAATTTTATGTCAATTAAAGCTATTTTTTAAAAAAGACCTATATGAAAACTTGAATTTT  
GGGGAGTTAGTTGTATTAACCAGGCCCTATCCAGTCTTTTTTTCAAATTAGAGAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 185>:

**GNMCJ07F gnm\_185**

25 CCGGAAGAAAGTGAACCTCTGAGTAGAGCAGGGGAACACCGAAGATGCTCCAGTGCAGATC  
AGGAAGGAGCAGGGGATGAAATGTTACAAATCTAGAACTCAGAGAGCTGAAGGTAATTA  
CTTCCTTTTCAAGTTGTGAAACATGTTAACCTGTGGTAAAATACTTATAAGATGATAATT  
ACCATCTAACCGTTTGAAGTGACAGTTCAGTTGTGTGAAGTATATTCATGTCATTTTTT  
TTTTTTGTTTTTTTTTTTGGAGACGAGTCTCACTCTGTCAACAGGCTGGAGTGCAGTGGTG  
30 GGATCTTGGCTCACTGCAACCTCTGCCTCCTGGGTTCAAGCAGTTCTCCTGCCTCAGCCT  
CCCGAGTAGCTGGGACTACAGGCGTGCATCACCATGCTCAGCTAATTTTGTATTTTTAG  
TAGAGACGGGGTTTCAACCATGTTGCCAGGATGGTCTCCATCTCTTGACCTTGTGATTCA  
CGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGGAACCGCATCTGG

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 186>:

**GNMCJ09R gnm\_186**

40 CCATGACAGGTCTTTTTTCTGTCTGTATACAAGATTAGGGGAGTGTTGGTGGGAATA  
GTCTGCTCTGATGAGGAGGCAGTCATTCTGGTGTTCTGTTTGCTGCGTAATGTGGGAAC  
ACATTTTGTCCAGCACTTCTGGATAAAACACACAAACCAGGCTCGACAAACTCCCCAGT  
GCCACATCACTTGTTCAATTTCAAGAAAGATAGCTGAGGCCGGGTGCAGTGGCTCACACCT  
GTAATCCCAGCACTTTGGGAGGCCGAGGAGGGTGGATCACCAGGTCAGGAGATTGAGACC  
ATCGTGGCTAACATGGTAAACCCGTCTCTACTAAAAATACAAAAAATTAGCTGGGGT  
GGTCACATGTGCTGTAGTCCCAGCTACTCAGAAGGCTGAGGCAGGAGAATGGTGTGAAC

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CGGGGGGCGGACTTGCAGTGAGCCAAGATCGCTCCACTACACTCTAGCCTGGGCGACAGA  
GCGAGACTCTGTCTCAAAAAAAAAAGAAAGCCAACCTTCAATCACTTCAGCATCCTG  
GACAGTTCGAGCACATTGCAGGCATAATAGCTGTTTGAGGGCAATAAATAGCAGTCCTC  
AAAGCCATTGAGCAAATACCTGCTTCCCCTCT

5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 187>:

**GNMCJ09F gnm\_187**

CCGAATCCTAGCTAGATTTGTCCGCCAACATATCTGAACCCCTGGCCTCTTGGAAAAAA  
AAGAGAGAGAGAGAGAATATAAAATGTACTATACAGGGTTAAATTGACACTTCCTTCTTG  
10 AAGTATTTAGAAGTACTAATGGAGAGTTGAAAAGGGAAGCATGATTTCCCTCCCTATGTGG  
CAATGTTGTTTAATGCAATGCAGGACAGCTTCCCAGTGCTTCAAGTCTTCCACCTCCTGA  
AACACTGATGTGGAGGGGGAACACAGGCCTTAAAGATCAGAGGCCTGAATTCGAGCCCC  
TGCTCTGCCACATACTTGCTGTGTACCTTGAACAAATTACACAGCCTCCGTGGGCTTTG  
GGGATAAATGTGAGACGGCATAGAGAACTCATCTCCTCTGCTGACTGATTCTGATCCTTT  
15 GGTTCGACTGCCTGAGCACCATGTGATGAGCTCTGTGAGGGCTCCATGGAGGGAAAATGC  
AGTCATCTATTGGTGATATCTGCTATGGACAACATGAGTTGGAAATTCTGCCAGCCAGAC  
TATGTCTTCAAGGACTGTGAACAAGGTGTCTTCTGAAGTCACTTCCAGATCAAAGGACTT  
GGTGACTCGTTCCATGGGACTGGAATACGAGAGGGACTCTATATCATCATGGTTATTTT  
CTAAAGGCCCTGAAGAATCT

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 188>:

**GNMCJ10R gnm\_188**

CCCAGGCTGGTCTCGAACTCCAGACCTTGTAATCCGCCTGCCTCAGGCTCCCAAAGTGCT  
GGGATTACAGGCATTAGCCACCGTGCTGGCTTTTGGTGTCCTTCTCGTTAGTCCACAC  
25 TCCTGGCCACTTCCCAGGATGCAAAGTGGCTCACAAGGATTGGATTAGGACCCATTCCAA  
TCAAATAATAATAACAAACATTTGTTTATTTTGGCTTCTGGATATTAATTTAATTACT  
TTGAAACAACATAATTTACTACCAGATGTTTAAACAAGCACCCATTATAATTGCTAAACTG  
TGAATTTAGTTTTTAACCTGTGTCTGACCAACTATACAAAACCTCATCAATTTTAATTTTGAC  
AAAAGGTAGTAGGCTGGGCATGGTGGCTTATGCCTGTAATCCCAGCACTTTGGGAGGCCA  
30 AGATGAATGGATCACTTGAGGCTAGGGGTTTGAGACCAGCTGGACAACATGGTGAAACCT  
GTCTCTACTAAAAAAGAAAAATTAGATGGCCATGATGGTGCACACCCGTAATTTTCAGCT  
ACTTGGAAGGCCGAAGCAGAAGAATTACTTGAACCCAGGAGGCAGAGGAGGTTGCAGTGA  
GCCGAGATCATGCCACTGTACTCCAGACTGGGCTGAGCTACAGAGCAAGACTCTGTCTTA  
AAAAAAAACAGGCGAAAGT

35

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 189>:

**GNMCJ10F gnm\_189**

CCGGTATTAGGAAAGAGACAAACCACTTTGTCCTGGGCTGGGAGGGAACAAAACCGTCTC  
CCTCAACTCCCTAAAAATCAAATTCAGAGAGGACTGTCAAGGTGGACCCATGGAGCCCCAG  
40 TCAAGGTCCAGAAACAAGGATTCAAAGCCTTCAACATAAAGTCAACACGAGGCTAGAAGA  
GACCAGATGAATGGGCTGGCCTGGTACCTGAGTCAGAAAGTGGGAGTGCGTGGGCATTGG  
TCATGGTGCCATAATGGAGACAGTGAGCACAGGAGTTAAACAAGATGGCTCTGAGGCCAG  
GTGCCCTGGGTTCAATCCCAGCTGCGTAACTTTCACGTGGCCTTTTCCAGTTCCTTACA  
CACTCTGTACCTCACATGAATGAAGTGAAGACTACAGCACTACTGACTTCAGA  
45 GGATTGTTGGATTAAAGTTATTAATTCACCTAGAACACAACCTGGCACATAGTAAGTGTTT  
AGTAAATGTTTGTATTCCACACCCTCCCTCCCTTGGCCCCCGATGGAGGAAGCAGGCT

AGGACCAGCCCTCGGAGCTGCAGCTGCCCTTCATCCCTCCCTCGGCCTCTCTAACGAGAT  
CCTGCTCCAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 190>:

5 **gnm\_190**

AAATTTACTCAACCATTCTGGAAGACAGCGTGGTGATTCTCAAGAATCTAGGACTAGAA  
TTACCATTTGACCCAGCAATCCCATTCTGGGTATGTACCCAAAGGATTATAAATCATGC  
TACTATAAAGACACATGCACACGTATGTTTATTGTGGCACTATTACAAATAGCAAAGACT  
TGGAAACCAACCCAAATGTCTCCAATGATGGACTGGATTAAGAAAATGTGACACATATAC  
10 ACCATGGAATACTATGCAGCCCTAAAAAGGATGAGTTTCGTGTCCTTTGCAGGGACATGG  
ATGAAGCTGGAACCACCATCTCTCAGCAAATATCACAAGGACAGAAAACCAAACACCGC  
ATGTTCTCACTCATAGGTGGGAATTGAACAATGAGATCACTTGGGCACAGCAAGGGGAAC  
ATCACACACCGGGCCCTGTTGGGGGGTGGGGGGAGGGGGTGGGGATAGCATTAGGAGATA  
TACCTAATGTAAATGATGAGTTGATGGGTGCAGCAAACCAACATGGCACATGTATACCTA  
15 TGTATCAAACCTGCACGTTGTGCACATGTACCCTAGAAGTTAAAGTATATTTAAAAA  
AAAACCTTCCCTTTCTTGAATGTAAATTGGTTCAACCATTTGTGGAAGACAGTGTAGCGAT  
TCCTCAGAGATCTAGAAGTAGAAATACCATTTGACCCAGCAATCCCATTATCGGGTATAT  
ACCCAAAAATATATAAATCATTCTGTCAAAAGATAAATGCACACATGATCATTGCAGCA  
CTAATCACAATAGTAAAGACATGTAGTCAACCCAAATGCCCATCAATAATAGACTGGATA  
20 AAGAAAATGTGGTACATATATACCATGGAATACTATGCAGCCATAAAAAATGAACAAGATT  
ATGTCTTTTGCAGGGACATGAATGGACCTGGAAGCCATTATCCTCAGCAAACCTAACGCAG  
GAACAGAAAATGAAACACCCCATGTTCTCACTTGTAAGTGAAGCTGAACGATGAGATCA  
CATGGACACAGGGAGGGGAACAACACACACTGGGTCTATTGTGGGGTGGGGTGGGGGA  
GGGAGAGCATTAGGAAAAATATCTAATGCATGCTGGGCTTGATACCTAGGTGGTGGGTTG  
25 ATAGGTACAGCAAACCATGGTACACGTTTACCTATGTAACAAACCTGCACATCCTGC  
ACGTGTACCCAGAACTTAAAAATAAAAAATACCCCAACACACTCCTTAGGTATATGT  
AACTATTTTCCCGGGTAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 191>:

30 **gnm\_191**

GTAAACCAAATTCGAGGATTGTGTCTAGGACTTGAAGGGCCATAGGCATTGCAACCACCG  
CCAATCCCCTCCTTTTACTAATCGTAGTGCTTTATGGCCATAAAGCACTCTTTCTAAATC  
TAAAAATGATTAGAAGAAGGAAAAGACCAATATGATGATAACAATGTGGGAGATTCCTT  
TTATCTTTTGTAGCCAAATGACAGTAAGGAAAACAGACAGTATGCTGACCTCATCGTTTC  
35 TCTAGGTTGCCAGTTTTTTTCACTAAGATGTATATAAATGAAACCCTTTTGCTCTGCAGG  
CTATTATACTATTCTTTTAAATTCAGCATCTCTCCCTCCTCCGTTTCATGCAGATTGTG  
GAAGAGAACATCATTGGGAGAGAGAGTTTATTGGTTACTGCTCACCTGAGTAAGCAGTAA  
GCCCAAGTGGCAGAAAACCCATTCAAACCTGGCTTGAAGCAAAAAGGGAATTATTGGAAC  
ATGTAATTGAATAGTTTTAGGTGTAGGGCTGACTTCAGACGCAGCTGGATCCAGAGACTC  
40 AAATGATGCCATCAGAAACATCTTTGGCTCTTTGTCTTATATGCTGAAAACCACTGAATT  
GTGCACTTTATTTATGTAATTTTTTTTTTTGAGACAGAGTTTCACTCTTGTGTTGCCAG  
GCTGGAGTGCAATGGCCCCATCTCGGCTCACTGCAACCTCCACCTCCAGGTTCAAGTGA  
TTCTCCTGTCTCAGCCTCCCAAGTAGCTGGGATTACAGGTGCATGCCACCACGCCTGGCT  
ACTTTTTGTATTTTATAGTAGAGACAGAGTTTCATCATATTGGTCAGGCTGGTCTCAAAC  
45 CCTGACCTCAGGTGATCCGCTGCCTTGGCTTCCCAAAGTGCTGGGATTACAGGTGTGAG  
CCACTGCACCCGGCCCAATTGTGTACTTTAAATGGGTGAATTGTAAGGTGTGGGAATTAT  
ATCTCAACAGAGCTGCCCCACTTCCCCAAAAAGGACCAAGAGGTGAGGAAGTGGAGAC  
AATAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 192>:

**gnm\_192**

```

5  CATGTCAAAATCCTAATCTCCAAGGTAATGGTATTAGAAGGTAAATCTTTGGTAGGTGAT
   CAGGTCATGAGGGTGGAGCCCTCATGAATGGGATTAGTACCCTTATAAAAGAGAACCCAG
   AGAGCTCATTTGCTGCTTCTGCCATGTGAAGATACAGTGAAAAAGAAGCAGGCCCTTGC
   CAGATACGAGTTTGCCAATGCCTTGATCTTGAATTCCCAGCCTCCAGAACTGTGAGCAG
   TAAGTTTCTATTGTTTATAAGCTACCCAGCCTATGGCATTGTTGTTACGGCAGCCTGAATG
   GACTAAGACAGTCTACCTAGACCATTATTTCCCTTTCATCATCCACCAGCCAATTCCAGC
10  ACATCTTTTAGATCTCAGCTTAAATACTCCCTCCAAGACCTCCCTCTATCTCTAATATGA
   ATGAAATCCATATCTCAAGTTCTTCACAGAATCCTCTACTCTTTCCTTCATGGCATTGTT
   CATAATTTGTAATTATATATCTAGCAAAGTTCTTGTGTTAAACATCTACCTCCTCCAC
   TCTCCTAGAACTCCACAAGGACATCCCTGCACCCAGTGCCTAGGCAATGCCAGACACAT
   AGCAGATGCTCCATTAATTATCTGTGCAATGACTGAATGGCTTCCAAGTTAGTTAACTGG
15  GCACCCTTGATAACAGATTCTGGCCTATTTGAAGGATCAAAGAAGAAAGTGGTGCTACCT
   TCTCCCCCTGCCACTATCTTGCCCACTTGTGGTGCCAGTTCAGGAGGTTTGAATGGATGT
   GGCTAATGATAGACGTAGACCTATTGCCTTCTTGGATCATAAATCTGCCAGGCTCTGAG
   TCCATGTGGCATCGATGGCTAATTGTCTCCAAAATTTATCCTCTCTTCTTCCATTTATA
   CCCTCCCATGGAGTTTAAACAGGGCATGTGGTCACCCTACTGGGATCTCACTTCTCAGCT
20  TCCCTTGCACTGGATGTGGCCTTGTGACTAAATTCTCATGAACAGAATGTGAGTGCAAG
   TGATGTGTCTAGTATCTTCATCACTTTCTAAAAAGGGAAGTGTGGTCTCCACTTCCTC
   TCTTTCACCCTTCCAATGAGCCAGAACATGCATGTGATGCTGGTGAGTCAGCTTCAGTCA
   CATGAATAAAACAAACTCCAGGAGATGACTAAGCAATAAGACAGAAGGAACCCAAGTCC
   CTAGACGAGTTCACAGAACCAAGCTACCTATCCAACCCTGGGCCACCTGGATTATAACA
25  TGAGAAAAACATAAGTCCTAATCATATTTTGAAGCACTGCATTTTAGGGCTTCTTTGTG
   ACAGCAGCCTACCCTCTAGTCTAATCAATATACCTCACCAGTCTCCTGCTCCTAAGGGA
   GACAAAGAAGCAAAATGAGTCTCAAAACATCATCCAATGGAATAGATACAGACCTGTAA
   TCCCAACACTGTGGGTGCCAAGGCGGGTGGATCACTTGAGGTCAGGAGTTTGAGACCAA
   CCTGGCCAACATGGCAAAACCCTGTCTCCACTAAAAATACAAAAATTAGCCGGACGTGGT
30  GTTGTGCACCTGTAATCCACCTACCCACGAGGCTAAGCCGGGAGAATTGCTTGAACCCA
   GGAGGGGGAGGTTGCAGTGAGCCGAGATCATGCCACTGCACTCCAGCCTGGGTAACAGAG
   TGAGACTCTGTCTCAAAAAATAAATAAAAAATAAAATAAATAGACCATTAAATTAATAGA
   TATAGCCTTGCTGTGTGACCAAAGCTCAGAATGTTATGATATTCCTTTCCTATGTCACCT
   CAACTTGCCCTGTCTCATCAGACAGGACAAATTCCCCACTGGTCCCTTGCACCTCACAGCTG
35  TTACATTTGAAATGGGAGCTTAGCCTTCCCTGCCCTGGTTCCTCCTTAGACTCATTTGGG
   AAAACAGGAAACGTAATTATTTCTGCCATTACCTTTATCTCATGGAGCCTGACAGAGTGT
   AACCATGGTAGGAATTAACACTCTAATTGCCAACTCACAACAACTCCCGAAAAAAT
   CATTTTAACTCATTATACATATTAAATTATGACATGCTTAATGTCCAACCTAATAGATT
   CAGTACTCAGGAAATCCCTTATACAGGTAGACACGGGTAC
40

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 193>:

**gnm\_193**

```

45  CTTAGATTAATGGGCAAAAAAGTTACAATCATGGGATGTTTGGCTTCCCTATAAAGACTA
   ATGTTTCATAGATTGTTTTTCAAAAATGAGGACTCCCCACTAAATGGGTCCAGCTACACAC
   ATGGTCTGCAACACGACTCAGATAAGGGGGACCTGAAGGCTAAACTCTTAACACTTTTC
   TCAGTTCTAAATTTCTTCCCTAAGGGGAGTAGAGGAAGTCACACCCAGGCCAGAACTAAC
   ATTCCACTGATCTCAAATTTTGTAGACAAGGCTTCTCCTCCTAAGCCAATTACAAATCAAw
   ACATCTTTAAATCTACCTTTGACCCATGGGTTCCTTCTGAGACGTCCTGCCTTTTGTAG
50  GTCAAACCAATGTAGAGCCTCCCATATATTGATTTATAACTTTGCATGTAACCTCTGCCT
   TCCTGCAATTACAAATCCTTACCTATAAGCCATCCGGGAGCTTGGGACTTAAGCATTAAC

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TAATTATCTTTGCTTGGTGCCCCCTCCAATAAATACCCCACTTCCTCTTGCTACAATCCCA  
ATATCAATGTTTGGTTTTGCTGTGCTGGGCAGGGGACCCAAGTTAGGTTTCAGTATCAGC  
AAGAAGGCAAGACAGAGTGTGTGCTAGCAAGACAGAAGTCCGTGTGTTTGGTAACCTAAT  
CTCAAACCTGAAATGCCATCACCTTTGCTGTGTTCTACTGATTAAAAGCTAGTCACCCATA  
5 TGTTCATTGCAGCACTATTACAAAAGCAAAGACATTGAATCAACCTAGGTGCCCCATCAA  
TGGAGAATTGGAAAAAGAAAATGTGGTACATATATACCATGGAATACTACACATCCATAA  
AAAGGAACAAAATCATACCCTTTGCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 194>:

10 **gnm\_194**

CCCTTTTCTCGGTGGAATGTGCTTCTCCTTCATACATGATATAACTTGATTGAAACAATG  
TCACAAAGATATTTTCTCTGTAGATTAAAATTTGTTTGCATGAATTTTCAATAGCTT  
TAAGCAGTTGAATAGCAATATATGCAGGAAGAAGCTGAGAGACTTATGTAATAGATATTT  
CATGTATCTATAACCCACACTGCTGCCCAGGAAATGTGCGCTGCATTAATAGAGAGGATT  
15 TTTTCTGCTGAATACCTTGAGGAGTTGGCCAACACGTTTGGGAGTAGAAGTAGAAAGGG  
CCAGGTGTGATGGCTCATGCCTGTAATCCCAGCACTCTGGGAGGCCAAGTGGGAGGATT  
GCTTAAGCCCAGGACTTTGAGGCCAGCCTGGGCAACAGAGTGAGACTCCATCTCTAAAGA  
AAAAAATCATAAArACTAAAATTCTCTGCCAAAATGGACACAGAAAAAATGACAATC  
CAGAGAAAGATAATATGCAATGAAGCTAGACATGGCCAAATTAGAAAATGATATTGAGAG  
20 AGAACAAGAGCAAGAAAGAGGAGCCCTCAGCATTGAGAGGGCTGAGGAAGCACAGAAATG  
ACTGATGGGTGGTTAGTTAGTTACTTTTTGTGAAGTGTGCAATGTAAATTTCACTTTGG  
TCTCCCCACCGGAATCATCAACTAAAGTCTACACTGCTATATCGGCTATCTATTGCTGTG  
TACAAATTATTCCAACTCAGTGGCTTAAACAACACATTTATTATCTCACAGTTTCTGT  
GGGTTAGGGATTCSAAGATGGGCCCTGCTTCA

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 195>:

**GNMCJ15R gnm\_195**

CCAACCAACATGTACAGTATCTCATGTACACAGTCTTCTAAGGATTGACACTGAGGTTGC  
TTCTGGATTTTTGCAATTACAGATAGTGCTGGATACAAATCTTTGCAATATACCTTGCA  
30 CGCATGCATGAGAATATCTGGAGAATAAATTCCTAGGCTCTAATTGTGGTCTATTTAAA  
TTTTGCATAAAAATTTGATACATGTTTTCTAACCACCTGCTCCTCCCAAGAGGTTGCACC  
AGCTTACAGTCCCAACATCAGGGAAGAGGGATTTTATTTTTTTATTTTTTTTTTTGGG  
ACAGGGTCCGGTCTGCCACCCAGGCTAGAATACAGTGGCGTGATCATGGCTCATGGCAA  
CCTGGTCTTCCCCAGTTCAAGCAATCCTCCCGCCTCAGCCTCCCCAGTAGCTGGGATGAT  
35 AGCCGCATGCCACCACCCAGCTAATTTATATTTTACTTTTTGTAGAGACAGAGTCTCA  
CTATGTTGCCTAGGTGGATCTTGAATTCCTGAGCTCAAGCGATCCTCCCACTTTAGCCTC  
CCAAAGCTCTGGGATGACAGGTGTGAGCCACCATGCCCTGCCTGAGAATTGTCTTCTCAC  
ACCCTTGTTAATAGGACTATTATCACATTTTAAA

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 196>:

**GNMCJ16R gnm\_196**

GTACCCGTTTCTTTTGGTGCCAATCTTGAGCGCGGTAAACCAGCTTCTCCGCGCTCTTC  
ATAGACCTTCAGCCACCTGGCTACAGAACCACTACCAGCAAGCATAAAGTGAGCAGCAGC  
CTGATTAAAGGGACATGTGCTGCTCGATCACAGCTTTCACGACCTTAATACGCAACTCTGG  
45 ATCAGCACTAACGCCTTTAGGTTTGGGAATTAAACCTTTTTCTCCATGTTTTTCATAGAG  
GGCAACCATGTCTGTGACCTGGGTTTCGGGGACACCAAACGTCGCGAGATGATCCTGTA

ACCATCATCAGTTGTGAAGTAGTGATTACGACTTCAAGGCGCTTTTCAAAGGGTATTT  
TGGCTTTGACATATTAGGGGCTATTCCATTTTCATCGTCCAACAAAATGGGTGCAGTACAC  
TGGAGGGCTATCAGTACACTACCTTTACGCCCCGCCACCTCGCGTCTCGGAAGCCTTAAT  
GAGCGCCCTGGCGAGACCCGCGAGCAAGGCTACGCCCTGGACAGCGAAGAGAACGAGCAG  
5 GCGGTGCGCTGCGTGGCGGTGCCGGTGTGGAACACGAGTCCCGCGTCATCGCCGCCCTGA  
GCCTGTCGACGCTGACCTCCCGCGTGGACGACGCGGAGCTGGCTAATTTACGCGAGCAGC  
TTCAGCAGGCCCGGGCTCGCGCTCTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 197>:

10 **GNMCJ16F gnm\_197**

CCTGGATCTAGGCGTACGTCAACTATTCCGCCAGCAGCAGCGTGCAGCCGGTTGAGGTGC  
TCACCACCATCAAAATTCTGTTCTGCGTGGTGCCGGTGGTGCTCTACGCGGGCATGTTCA  
TCATGCTGTGCTCTACAAGCTCACCGATGCCCGCGTGGAGGCCATCAGCCGGCAGCTGA  
TTAAGCACCGCGCGGCGCAGGGCGAGGCCGTTCCCGACGCCGCGACAGCGCATCCCATTA  
15 ACCGGAGGCAATATGGAAATCACTAACCCGATACTACCGGCTTCAACCCGGACCCGTCC  
CTGTGCCGCCAGGGCGAGGACTACTACATCGCCACCTCGACCTTCGAGTGGTTCCCGGGC  
GTGCGCATCTACCACTCCCGTGACCTGAAAACTGGTCTGCTGGTCAGCACCCCGTTGGAC  
CGCGTGTGATGCTGGACATGAAGGGCAACCCGGACTCCGGCGGCATCTGGGCGCCGTGC  
CTGAGCTACGCCGACGGTAAATTCTGGCTGCTCTACACCGACGTGAAGATTGTGACTCG  
20 CCGTGAAAAACGGCCGCAACTTCCTCGTCAACGCGCCCTCCATCGAGGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 198>:

**GNMCJ17R gnm\_198**

GTACCGCGGATTATTGTTGGTTAATGCTGGTGTTCGGTACTGAACCACCAGTTGCCATGT  
25 CTGAAACTTAATAAAATCGCTGATCGACTTGGCGTACGATTGCACAATCACCAGTACGCC  
AAACATGGCGGGCGTCATCCCTTTACCGGCACACGAGAGCGCCAACAGACCCAGCAAGGC  
GCTCACGACATTACTGGAGCCTAACCAGGCGCTATTGCGAATAATGGTGCAGAAACGCGCC  
ATCTGCAAAACCAATGTTTGATGTTAAACCCGCCAATTCAGCCTGACCTTATCGTTGATA  
GTAAAAAGTATCCCGCCAGCCTTAAGTTAACTTCGGCGGTGAGAAACGATGGCAACCAG  
30 AGAAACCGCCTTCTGTGCCTGTTCCAGCACTTCGCTGTAGGGCGCTCTGGAATCAATCTC  
AAGAATTTTTGTGCCGTTATAGCCAATCTTCGACATGACACCGATTTTGTCTGCAGCTC  
GGCATAGTCATGGTCAGGCTTGCGGGAGATGGCAGTCTCAATATCAATGCCAGGCGAAT  
AATTAATTCGGGGGATATTGCGCCATTTGTTGGTATAAACGCCGTTCGCGCTGCGCCAG  
AAACATGCTGATTTTCCCGGTGCGACGTACGACGCCAATCCCCGGTCCATCATAATAAAA  
35 GCCCGAAATTTACGCTGCGGGAAGCGATCGCTGACCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 199>:

**GNMCJ17F gnm\_199**

CCGGATTTTCCCATCAACGGTAATTTTGTCACTGCACGACCGACATTTCCGGCCTGTTTT  
40 CCTAAATGAACTCTTTCGGCAGCACCATAATTTTCGACAACGGTAATAAGATGTTACAC  
ACCGTTGACTTGCTGAACCATCGCTACCAATAACGGCAATTAATGGAGGTGTTATTGAC  
TGCATGAATATATCCTTTAATTTAAATATCCATTAAAAATATTTATTTGGTTAATATGTT  
TTTATGAAAGCGTAATTCAGGTCAATGTCACAATTAACCATGTGCAATAAGGTTGAAC  
GGATATTCTGAGCACGGACCACGTAATATTCAATACATTATTTACTGCCGGGTTTTTCGT  
45 GAATCAACGTAATATGTCAATAATTAATCCACGCCAGGCGTGTTATTGCCATTGTAGGA  
TGTGATGGTTTCAGGTAAATCGACCCTCACGGCAAGCCTGGTAAATGAACTGGCAGCAAGA

-662-

5 ATGCCAACAGAACACATTTATCTCGGGCAATCGTCCGGGCGAATTGGCGAATGGATTTCACAGCTCCCTGTTATTTGGCGCACCTTTTGGGCGTTATCTGCGAAGTAAAGCGGCACATGTGCACGAAAAGCCCTCAACACCGCCTGGCAATATTACTGCACTGGTTATCTATCTGCTTTCCTGCTGGCGGGCGTACAAGTTTCGCAAAATGTTGTGTAAGCCAGCAAGGCTTTCTGCTCATCACCGACCGCTACCCGCAAGTTGAAGTGCCGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 200>:

**gnm\_200**

10 GTACCGGGCGCTACCTGGCTCAAGTCCGAGCTGTGAACACTGTACGATCGCACTGACAAAACTCATAGTGTACAGTTTCTTAACGCCGAACCTTTACGAATTTCTGTGGTGGCGATACGGATCATACGTTAGCCGTCATATGGCGTGGAAGAGCTGCTGCCAGTTGCTCTTTTCATTGATGGCTGGTTAATAAACTAATCACGTCGCTATTTTAACTGCTGCTGGTGCACGGTTTCCC15 TGAGTTTTTTCAGATCGGCTTTTGCATTGGTGGTTGCTTAGTCATTTGCATATTCCTTAGCCCAGCGGGCAGTGATAATGTCTTAATAGCTGGCCATTTCATCGGTATTCAGGCAGTCAGACAGGGTTCGAGATTGCGGTGATATTCCTGTTGACCTGCCAGTWTGCTTCTTCGCCCATCATGAAAATTTCAACCGGATAACGTCCGCATTCAATAGTTGTGCTGGCAACCAGAAAACGAAAAGTTGGCTGCACTCCAACTGTGCTTCATAACCGTCACTGTAGAATGCATCCTGAACGTGATAGCGGTAGTCGTAATAAGCGGTTTTGAATCGTTGAATATCCGCCGTAGTTTT20 CACGTCCATGATCCAGTGAAATTCAGGGATAATTTTGTCCGGACGGCACCGACACAAAAATTCCTGTTTCAGGATCTTCCCAGTAAATTGATGATTACAGCGTGTCGGCGCTTTCAACAAGCCATTGCCCCAGCGGCAAAGCCATAACGCTTTGATACATGAGTACAATTTCCGGCCTTCTCCGCGATGATAACCGTTTTTCTGTGCTTGCGCATTCATCAGAAACGCTTTCTCTTCTCTTTCCGGCGTTTGTACGGCGTTAAATTCAGGTGCTACGATAAAGCGGTACTGAA25 TTCTTCCGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 201>:

**gnm\_201**

CTGCCACGAATTTTCTGTGTTAATGACCTGCCCGCTGAAGGTGAGATCGATTTTACCTGGAGTGAACGCTATCAACTCAGCAAAGACTCCATGACATGGGAATAAAACCGGGAGCAG30 CACCAGACAACGCTCACTATCAAGGCAATACCAACGTCAACGGCGAAGACATGACTGAGATTGAGGAGAATATGCTACTCCCAATTTCTGGCCAGGAAGTGGCCATTGCTTGCTCAACCGGCAGCGAAAAACCGGTAACGCACGTTTACGCGACGGACTCCAGGCATTACACATTGCTCGGGGTGAAGAACTACCGGCTGTTACTGCCCTGGCTGTTTCCACAAAACAGCCTGCTCGACCCGCTGGAAATTCGCGAACTCCACAACTGGTTGCTGACACTGACAAAGTTT35 TCCCTAATCCTGGTAATTCAAACCTGGGACTGATAACTGCTTTTTTTCGAAGCATACCTGAACGCTGACTACACCGATCGAGGACTGCTGACAAAAGAGTGATGAAGGGTAATCGTGTTTACACATCACTCGCACGGCTTCCGGTGCTAATGCTGGCGGCGGAAACCTCACCAGTCGCGCGAAGGTTTCGTACACGATCTGACGTCACTGGCGCGGACGTAGCCACTGGCGTACTGGCCGTTCAATGGATCTGGACATCTATAACCTTCATCCGGCACACGCTAAACGCATTGAGG40 AAATTATCGCTGAAAATAAACCGCCCTTTTCTGTTTCCGCGACAAATTCATCACCATGCTGGCGGGGCTGGATTATTCGCCGCCATCGTGGTTGCGTCCGTAAAAGAAGCACCATTGGATCGAGGTCAATCCCGCGCACGTCACTGAATATCTGAACAAAGTACTGACTGAAACCGATCATGCCAACCTGATCCGGAATCGTGGATATTGCTGCGGTGCTCCTCTGCCCCGA TGCCGCAGCGAGTAAACAGAAGAAGGAAAACAGGATGATGAAGAAAAACCGCAACCATCTG50 GAACAACGGCAGTTGAACAGGGAGAGGCTGAAACAATGGAACCGGACGCAACTGAACATCATCAGGACACGACGCCGCTGATGCTCAGTCACAGGTAAATTTCTGTTGATGCGAAATATCAGGAACTGCGGGCAGAACTCCATGAAGCCCGGAAAAACATTCCATCAGGAAATCCTGTGCGATGACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 202>:

**gnm\_202**

```
5 CCGTGTGTTGCATCAAATGACTGGCCTGTTCAAGGACCCATTGACCCAGCAATGTGTGGTT
ATTATGAAACCAGAGGCAGAACGAGCTTTCTCTCTTTACCTAGGGGGCTGGGAGTATTT
CAAGTGTCTTCCGATTTTATAACCCGCGAGTCCTAGAATTAACCCGACCCCACTGCCA
TTTACTCTCTCAATGTAGAGTTGCTTTGAGTAGGTAACAGCTTAAATCTTAGAAAGCTG
AGCCCCCTAGAGGAAATTTCTAAGGTCAAGCACTCATTTGCAACTTTTATTTCGCTAAAA
10 ATGTAGAGAAGGGAGAAGTCAAGAATAACACTGCTAAAAGGGAATTTATTTTATTTTAT
TTGTTTATTTATGAAATGGAGTCTCGTTCGTGCTCCAGGCTAAAGTGCAGTGGCGTGAT
CTCAGCTCACTGCAACCTCCTTCTCCAGATTCAATTGATTCTCCTGCCTCAGCCTCTTG
AGTAGCTGGGATTACAGGCACATGCCACCATGCCTGGCTAATTTTATATTTTATAGCAGA
GACGAGGTTTCACCATGTTGGCCAGGCTGGTCTTGAACCTCTTGACCTCAGGTGATCTGCC
TTGCCTCAGCCTCCCAAAGTGCTGGTATTACAGGTGTGAGACACCGCACCCAGCCTAAAA
15 AGGAATTTAATATGGACAAAGAGTACGATCCACAAAGGAGAGACAACCTTTATGAGCCCT
TTGAGCACAGCATAATACTGTCTCAAAATATAGAATGTGCCGGCTGCCGTGGCCCATGCC
AGTAATCCCAGCACTTTGGGAGGCCAAGGCGGGAGGATCACTTGAGCCCAGAAGTGCAAG
ACCAGCCTGGGCAACATAGTGAAACCTCATCTCTACAAAAAATTTAAAAATTAGCCAGG
TGTAAGTGGTGTGTGCCTGAGGTCTCAGCTACTTGGGAGGCTGAGGTGGGAGGATCACTTG
20 AGCCCAGGAGGTGAGGCTGCAATAAGCCATGATCACACCACTGCACCCAAGCCTGGGTA
AAAGAGTGAGACTGTGTCTTGGCCGGGCGCAGTGGCTCACGCCTCTACTCCCAGCACTTT
GGGAGGCTGAGGCGGGTGGATCATGTGAGGTGAGGTGTTCAAGACCAGCCTGGCCAACAT
GGCGAAACCCCTCTCTACTAAAAATACwATAATTAGCTGGATGTGCACATGCCTGTAAT
CCCAGCTACTCAGGAGGCTGAGGCAGGAGTATCACTTGAACCCGGGAGGCTGAAGTTGCA
25 GTGAGCTGAGATTGTGCCACTGCACTCCAGCCTGGGTGACAGAGCGAGACTCCATCTCAA
AAAAATAAAAAATAA
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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 203>:

**gnm\_203**

```
30 CCCAGTCCTGAGTATTTAAAATGTTTCATTTCTGTGCTGAGAGACAGAATTAGCACTTGA
TAAGGTTGCATAAAATGCCTGGCACACAGGAGATGCTCAGAAAGCATTTATCCTTTCACC
CAGCTTCATAACCTCTTCATAAAAAAAGTTGCAGACACCTCTCCTCACATGCACAGAGAA
ATATGGGACTATTCAAAGAGATGGACCAGCCACCTCCCTTCCCTCCCTGGGTGTTTTGCT
GCTCAGAGAATTCTGATGCTTAGATCACATCTTGGGAAAGGGCTCCAAGGCCAGAGCTC
35 ATGCGCTTGCTGTGGATGGTGGAGGTATTCTCATGTTAAAGTTGGAGGAGCTGATCCT
CTCCAGAAACGCCTGGGCCAGCTCAGGTGTGATGTCATAGACCATGTCCAGCTGCTTGGT
GGCGTTGTCATAGCTGATAAACAGCCCAATCTAGTTGGTGGACAAGGACGAGAATATCAG
TGAGGAGGGTGGAAAGTGGCCAGTGTGGCCCCACCTGGTGGTCTGCACTGTGCCCCATC
ATGGCACTTGGATACACCTCCTGGTTCTCATTGTGATGATGCTTTTTTTCTTTCTTT
40 TTTTTTTTTTTTTTTGAGATGGAGTCTCACTCTGTGCGCCAGGCTGGAGTGCAGTGACAT
GATCTCAGTTCACTGCAACCTCCACCTCCTGAGTTCAGCAATTCTCCTGCCTCAGCCTC
CGGAGTAGCTGGGACTACAGGTGCCACCAACACGCTTGGCTAATATTTGTATTTTGTAGT
AGATATGGGGATTACCATGTTGTCCAGGGTGGTCTCGAACTCCCAGCATCAAGTGATCC
ACCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTAACGACCATGCCTGGCCTCAT
45 TGTCATTGATTCTTAGTGGTCTGTAAGTCTACTTTAGTTTCCTCCTCAACCTAACTAT
TCTTTAGGAAAGAATTATTTTAAATATCTGAGAACTGGGCTTTTTTAAAGCTAATCTT
TGCACATTTATTTCTAGATTTGTTATATGGAGGTCAGAGAATGTGGTCCACAACTTTCT
CGCTTGAAGAA
```



The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 204>:

**gnm\_204**

5 CCCTGGAATAGCATAGTTAGGAGTGTGGGCCAAACTGGATTGAATCCTAGTTCCATCA  
CTTAGTTGTGTGGCTTGAGACAATTTGATAAATTTTCTTGTGCCTCAGTTTCCCTTTATA  
TGAAATATGGTTAACTGTGAGATTAAATTTGTTTACACATGAAAATTGCGTAAGAC  
TGTGCCAACACACAGTAAATGCCATGAATAGCCTTTTCTCATTTTATTTTTTTTTTTT  
GGAGACAGAGTCTCACTCTGTTACCCAGGCTGGAGTGCAGTGGTGCAATCTCAGCTCACT  
10 GCAACCTCCGCTCCAGGTTCAAGCGATTCTCCTGCCTCAGCCTTCCAAGTAGCTGGAA  
TTACAGGCGTGCACCACCATCCAGCTCATTTTCTATTTTGTAGTAGATACTGAGTTTT  
GCCATGTTGGCCGGGCTGGGCTGGAACCTCCTGGCCTTAAGCGATCCTCCTACCTTGGCCT  
CCCAAAGTCTGGGATTACAGGATAAGCCACCATGCCAGCCTATGAAAAGCCTTTTGT  
ATCTTACGTTTGCTTCTTTGTTTGTGTTTGTGTTTGTGCGATGGAGTCTCACTCTGT  
TGCCCAGGCTGGAGTGCAGTGGCTCAATCTTGGCTTATCACAACCTCAGCCTCCCGCGTT  
15 CAAGTGATCCTCCTGCCTCAGCCTCCTGAGTAGCTGGGACTACAGGTATGCACCACCATG  
CCTAGCTAATTCTTTTGTACTTTTAGTAGGGACAGGGTTTCACTATGTTGGCCAGGCTGG  
TCCCGAACTCCTGACTTCATGATCCGCCACCTTGGCCTCTCAAAGTCTGGAATTATAG  
GCATGAGCCACCGCGCCCGGCTGTAATCTTATAAAGAGATGGATGGATGGATGGATGGA  
TGGATGGATGGATAAATTAATAAACAAATAAAATACTTAGACTGAAAGAATATATCCAAA  
20 AGTACCCATTGGTGTTATCTTAGGGAAGGAGTGGTTATGGGAGTCTTTCACTTAACAT  
AACTGGGTATCCCTGATATGAGGCCCAAGACCCCTATTTCTTATCGATCATAGTACTCA  
TCATATTAGAATTGTTTATTAATATTGGCGTTTCCACACTACCTAGTTCCCTGCCCCATG  
TCCCTGGTATCTGTCTCG

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 205>:

**gnm\_205**

30 CCAAATAAATTGTTTGTAGCTGCTGTCATCTGGGGGTCTTTTGTATAGCAGCTCAGCC  
TATATCCTAATATACCATGTCTCCATCAAAGGTGGGAAAATGAAAGAAAGACAAAATAGC  
TTATATCATGTTTCAAGAAAACTGGACAGAACCCCTTTTCTTGCAGAAGCAAAGACTAT  
CTCTACATCCAGCCCACTTCCAACTTACCTGGCCCTGAGTTTGCAATCCCTGAGCAC  
TGAGATGGGAACATATAGATGGGTCTCAGGTACACACCTGCAGGCTGGGGATGGTGAAGG  
CAACATTCCGGGAATTCAGATAGGCCAGGACTCTGTGGGACAGGTATCCGTCCACACGT  
GGGAGCTTCAGTTGAAGACAGACAGGAAAAGATCACAATGACAGATTCTCTACAAGCAC  
TACTGTACTAGCTAAGTGCCAGGGGACAGGTAGGGATGGACCAGGGGTGTAGGACTTT  
35 GTACTTGGAAGTGGGAGGTTTCTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTT  
GAAACAGGGTCTTGCTCTGTTGCGCGATCACGGCTCACTGCAGCCTCAATCTCCCCAGCC  
CAAGTGATCTTCCAACCTCAGCCACCAAGCAGCTGGGATCACAGGTGCATGCCACAACA  
CCCAGCTAATTTTTTGTAGAGATGGGGTCTCACTATGTTGCCAGGCTGGTCTCAAACCTC  
CTGGGCTCAAGCAATCCTCCACCTCTGGCTCCCAAAGTGCTGGGATTACAGGAGTGAAC  
40 TGCTGCACCCAGCCTGAAGTAAAAAATTTCTTAACCAGGCACAGTGATAGGATAGTTTCC  
AATTCTAGGAATCTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 206>:

**GNMCJ23R gnm\_206**

45 AACTCTACAAAAAATACAAAAATTAGCCAAATATGGTGGCACATGCCTGTAGTCCTAGC  
TACTTGGGAACTGAGGCAGGAGGATCACTTGAACCTGGGAGTTCAAGGTGGCAGTGAGT  
TATGATGGAGTCACTGCATTTACGCCTGGGTGACAGAGTGAGACTCTATCTCTAAACCAA

ATTTTAAAAAGTATCTATATGTAATATAAAAAACCACAAGTGGGCCGGGCACAGTGGCTC  
ACGCCAGTAATCTTAGCACTTTAGGAGGCCGAGATGGGTGGATTACTTGAGGTAGGAGT  
TCGAAACCAGCCTGGCCAACCTAAAAAATTTTAAAAATACAAAAAAAACCCCAA  
5 AAAACCCACTAAAAATACAAAAAAAATAATAGCCGTGCATGGTGGGGGTGCCTG  
TAATCCTAGCTACTCGGGAGGCTGACGCAGGAGAAGTGCCTGAACCTGGAAGCGGAGGT  
TGCAGTGAGCTGAGATTACACCACTGTACTACAGCCTAGGTGACAGAGTGAGACTGTCTC  
AAAAAAAACAAAAAAAACACAAGTGAGCTCATACTATACATGCTGTCCTGTTTA  
TATATATAGCTAAGATATATATATGTATAAACTATATATATAGTT

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 207>:

**GNMCJ23F gnm\_207**

CCAGCCAACAGAGAAAAGCTGGGACAAGAGACAAATGACATCATTTGCACCCCTAGATCG  
AGCCATGCCTGAAGTCCCTCTCTGAACCTTCCAGTTACCTGAACAAAAATTCCTTTTA  
15 TTGCATAAGCCAGTTTCAGTTTCAGTTCTGTTGCTTCAACCAAATATCAACCTGATATA  
ATTGGCTTCATGTTTGTCTATTCCTCTCCCACCATGAGATTATAAGGTCTTATAAATTA  
ATAGGAATTTCTAAATCTTCAGATAGAAAATTTAGCTATCTGAGAAGTACACACAGCAA  
GTACTCAATGAACCTTTTTTTTTTTTGAATGAACGAGACAATAAGAGCAAAAAAGGT  
AGAGGGAATAAAGAAGGAGAGAGGAGAGAAACATGTCCAGATCATGTTTGAAAAGCA  
20 GGGCCACCCCTGCAGGCCCAAGCTCACACATGCCAGGAGAAACGCCTACTGCTCCCTC  
AACTCTGATTCCTGGAGCCTGGCACAGCCGCAAGCCAGGCCAGATGGGACCTGCCTC  
ACTGACACTCATTCAAGCTTGGGTTGCTTTGGCTTGCTTTTAGATAACAGGAAAAGCGA  
GAAGGTCTGTCTCAAATGTCTGTGTGATACTCAGAATTGAAATCCTGGATCTCAAGGGCT  
TAACTCTCTAAGGCATCCTCCACTCTGCCTCTGGTTCCTGAAGAAACCCAGTGGGGAGAG  
AA

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 208>:

**gnm\_208**

CATGACAACCTACCAGCCTGTATTCACCCGAATGTAAGCTTCTGTGGGCAGGAGGCTCA  
TCTGTCTTGTTTCGCTGCCATGTTGCTACTGCCAAGCAGTCCCCAGTAGGCTGGTCATGGC  
30 TGGTGTCCACGAACATATTTGTGCAGCATATGGGTGAACATACACACGTCCTTTCTGAAA  
CAAAATTGAACCTCAGTAGGACACTCACTCAGGCAAAGATTGGGAAGCTTTAGATCCATT  
TGGAGGAGGGGAGATAGAATCAGAATATATTCATTTAACAAACATTTATGGGGAACCTA  
CTTTTTTGGCAGACCTCATGCTACAGAAACAACAGTACACAAAGCCCTGCTTTCATGAAG  
CTTACAGTCTACCGGGACTGGGAGAGGCGGACCATAAACACACACATGCACACATATAC  
35 ATGTTACATCCACACACCCTGTATCAGATAGTGATAAATATTATGGAGCAAAGAAATC  
TGGAGGAAAGGATCGAGAGCTCCAGATGGTGATGGTAGGGATAGGGGTGGTGCAGAACAA  
GCTTTAATAAAACATTAGGTGGTCAGTAAAGGCTCTGCCCTCAAGAGGGATACAATCGCT  
TCTTAAAGGTCCCACCTCTCAATGCTCCCCTTTGGGATTAGTTTCAACATGAGTTTT  
GGGGGGTCATTTGAATCAAAGCACATGGTGTCTTACCATCAGCTCTAAGTTTACAGCCTA  
40 ACACTTCCGCAATAACAAGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG  
GATCTTTCCTAGTTACTTCAGCAAAAGTCCCCAGGTTAGGTCTGATTGGGCTTGCTTGAG  
GCAGGTGCCCATTTCTGATCTGACCACTGTGGCCCGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 209>:

45 **GNMCJ24F gnm\_209**

CCGCTTCTCTTCTTACTATTTCAAGATGGCTGCCCAATTCATGTGCAGAGGAAAGAGAAG

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TTCTTTCTCTTTACTCTGACAGTTGAATAAAAAATCCAAAGCCTGGCTCTCTTTGGTCCA  
TCCCTGAATCAGTCATTATGGCCTGGGGAATGGAGTATGCTAATTGACTTAAGGGAATCA  
GGGCCCAGCACTGGAGTGAAGTGGGGCTAATGCCACCTAATCCACTGGAGAGTACCAAA  
AGTGTGCTTCCCCAAAGGAAATTCACAATACTGTGGGAAAGGATGAATTGATGCTGAGTC  
5 ACTATGAATGACAAATGCAAAAGATAAACATACCAGGCCCACTCCTTGCAGGAAGCAAA  
AGATCCTAGAGGGGAGAGGCTGACATGGAACAGGATGCTGACCAATAAACTTCTTCCAA  
TGAGGATTCACAGACATAGTCATACCTTCCAGGTTAAGTAAGGCTCAATTCAGGCAGCT  
GTCTGTCTCAGCTCCTCATGCACATCCGTCGCTTCTGTCTACCCAGCATTTGTTTCTCCC  
10 TTATTCAGTTCTCATTGCTGTGTAAACAAATTGACAGAAGTGCATCAACTAAAGCAACACA  
AATGTATTATCTCACAGCTCTATAGGTCAAATCCAAGCACGGCTCAACCGGATTCTCTG  
TCAGGGTCTCATGGGGCTGAAAATCAGGTGTGAGCTGGAGCTGTAGTCTTATCTAAAGC  
TCAGGGGCTTCTTCCAGGATGATTGGGTTGTTTTTCAGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 210>:

15 **gnm\_210**

ACTACAGGCATGCACTACCATGCCAGCTAATTCTTTTAGTTCTTGTAGAAATGGGTCTC  
TGCTATGTTTTCCAGGCTGATCTCAAACCTCCTGGCCTCAAGCAATCCTCCCATCTCGGCC  
TCCCAAAGTGCTAGGAATACAGGCATGGGCCACCATCCCTGGCCACACAATTGTTTTTTTA  
20 ATTTAGTTATAGTAGTCTGTACCACTGTAGGATGACAATAGTTAACAAATAATATAGTT  
TCAAATAGCTAGAAGGAAGATACTGAACAGAAAGAAATGAGAAATGTTTGAGATGGTAGA  
CATGCTAATTACCCTGACTGATCACCATACATTATACACATCAAAACATCTTTATGTACC  
CCATAAATATGTACAATTATTATATGTCAATTTTTTTTTTTTTTTTTTGGAGATGGAGTCTC  
ACTCTGTCACCCAGGCTGGAGTGTAGTGGCGCAATCTCGGCTCACTGCAACCTCCGCCTC  
CCAGGTGCAAGCGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATAACAGGCATGCGC  
25 CACCACACCCAGCTAATTTTTTGTATTTTTTAGTAGAGATGGGGTTTCGCCATGTTGGTCAG  
GCTGGTCTGGAACCTCTGACCTCTGGTGATCAGCCCACTTCAGCCTCCCmAAGTGCTGGG  
GATGCCGGCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 211>:

30 **gnm\_211**

ATACCTCTCCAACCCCATGTCCTACTGTTATATCCTCTTCGTGCAATTTACTGAAGAACA  
TGCAATTATGCTCCTAATATCAAAGCCTTTGCACTGTCATTTCTTTCTTTCTGGAAC  
TTTCTTTCTCCAGATATTCCCGTGGTTCATTTCCTTCACtCCTgaGGTCTCTGCTTAAAT  
35 GTCACCTCCTCAGGTCTTCCCTGACCAAACTGTCTATAATAGTACCTGCTCCTTCTTTGG  
CTCCTTTTTCTACCCTGTTGTATTTTTCTCCATGGCACTCATCACTCCCTGACATAATA  
TAGTTATTTGATTATCTATTTTCTGCCTGGTTCATTCCAACACACCAGCAGGGAGTTAGT  
TTTGTAACTGCTGTATTCTCAGAGCATAGAATAATGCCTGGCTCACAGCACTACTCAAC  
AAATATTTGAAGAATGAAAGCATGAAATAATTACACAAACATAAATATGTATTATAGCTG  
40 TGCTTGGTGTATAAAAGAGAAGTATTGGCCTTTTCTTCTGGCTAATTGCTTTGGCCTGG  
TCAGAGAATTCAGGGAAGGCTTCATTGAAGACTTGAAATTTACAATGAATTGATCTTAGC  
CGGGCAAAGAGGAAGGGGAAGAATCCTCTGGGCCGAGGAACAGCCTGTGAGAGGGTCTTA  
ATCTGGGGAGGATAGCACCTTGGAGGGACAGACAGATGGCCCGGGCAGGAACCTTGGGGA  
ATGAGGGGGCAAAGAGGAGGGTGATACAGCCACTGGAAAAGCTTTGGGCTTTATCTTGAGG  
GTAATGGGGAGAGGGCGAGGGTGACATGAGTTTATTGAGATGGTGTTTTTTCAAACAGCA  
45 TCTGTTTGAAAACAGCAATCTGGTTTCTTGGCTATTaATAAACTTGTATACAGAGCTGA  
CTTTGTGTCAGCCCTGTTTGAAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 212>:

**gnm\_212**

CTAAAATAAAGCCTGTTTTATAATAAAGTGTTGAATATCTCACATAATTCATTGAACATT  
GTACTGAAGGGGCAAACCAGAATGGTTGTATGGGTACTTGAAGTACAGTTTCTACTGAAT  
GCACATTGTTTTGCAACCATTGTAAAGCTGAAAAATTGTAGATTTAACCAATGTAAGTTG  
5 GAGACCATCTGTGTTTTGTTCCCTCCTTAAGKGCATACAAAAGTGTAGCCAAAGAGTGTTC  
AAAGCTGGATTACATAATGAATTATTATTATTTTTTTTTTGTAGATGAAGTCTCGCTTTGTT  
GCCCAGGCTGGAATACAGTGGCGTGAGCTCGCCTGACTGCAACCTCCGTCTCCTGGGTTT  
AAGCGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGCATGCCTGGAATTAC  
AGGCACACGTCAACCACACCCAGCTAATTTTTGTATTTCTAGTAGAGACAGGGTTTCGTCA  
10 TGTGTTGGTCAAGGCTGGTCTCAAACCTCCTGACCTCAAATGATCTACCCGCCTTGGCCTCCCA  
AAGTGTGTTGGTTTACAGGTGTGAGCCACTGCACCTGGCTGAAAAATCCAGATTTTTGTCCA  
AGATTGCAGAATAAATTGCCTGGGACAAGTCAATGAGTGAGGAGAGATAAGTCAATGGAC  
TGAGAAGGGGTAAACTCAGTCTTGCATAAACAGAATACAGAGGGGATTTGGGTGGATGGG  
GAGCAGTGAGTGAATGGGCAAAGATAGGACAAAACCAAGCCCACTTAAAGAACAATAATA  
15 TTACAAAAGGACAAAGTTGAGAATAAGAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 213>:

**gnm\_213**

TAATGTTTTCTTCTTTTCAAAGATGTAATATTTCTGTAACTATAGAAAGATAAGAA  
20 AGATAAGAACCTTCAGGGCTCTTTGAAGACAAAATTGTATTCTGAATTGGGCATTCATTA  
GACTGAGCGGATAAATCTCTAAATCTGGGTTTTATGATTTTAGGTTTGTGTTTAATGG  
ATTTCTTTGCTTAAACTTCAGGTGCATGCATGATAATTTGAAGAGCAGAGAGATGGACA  
AATGTGATTTGATTTATAAGTCTTTTCAAAGGCATTGAAAATGTATTTCAAGTTTAGTT  
AAGCTTATTTTTTCACTCTTAGTTGAAGGCAGGAGTGATTGTTTTCTCCCTCCACACC  
25 TCGAAAGATGGAATGGTTTTTCACTTATAAATTTTTCCATCTCAGAAAAGGAGGAGCAGA  
GGTTTTCCAGAAGGGTTAAGAATAAAGGTGGGGAAGGCAAGCCCTTGTTACCATAAGAGC  
AGGAATCCATACGGAAGAGTGGCTGGTTTAGATTGCTGGCTTGAGAGTGGATTATTTTA  
TCCAACCTCTTGATCAGTGTGTGAGAATTAAGTAAGATAATGGATTTAAGGGGCTTAGAA  
GTGTCCAATCAATGTTAGCTACTGTTGTTATTCTCAGTACTACCTGTAGGCTTGATGGAT  
30 ATATTTGGAGACATTTGTACCAAGGGTTATGGGGCAATAAGTGCGTGGTTCCCATTTGGC  
CCAGTGAACCTTTTCAAGGACTTAGGATGAGGAAGGCGGGAAAAGCCCTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 214>:

**GNMCJ29F gnm\_214**

CCGGCGCGATCACAGCTCGTTGCAGCCTCGGGCTCCTACAGCTTATGCAATCCTCTCACC  
35 TCAGCCTCCCAAACCCACACCACCAAGCCAGCTAATTTTTTGTATTTTGGTAAATACG  
AGGTCTCACTTTGTTGCCAGACTGGTCTTGAACCCCGGCCCAAGTGATCCTCCACCT  
TGGCCTCCCAAAGTGTGTCTCCCACTACACTCCCATTCTTTCCCTTAAAAAAGTCTG  
AGTCTGGGTGCAGTGGCTCACACCTGTAATGCCAGAGCTTTGGGAGGCTGAGGCAGGAGG  
40 ATACCTTGAAGCCAGGAGTTTGAGACCAGCCAGGCAACACAGCCAGACTCCGTCTCTAC  
AAATAACACTTTTAAAAAAGTTACCCAGGATACCCAAAGGACTATAAATCATGCTGTTTT  
AAAGACACATGCACACATATGTTTATTGCGGCATTATTCACAATAGCAAAGACTTGGAAC  
CAACCCAAATGTCCCAACAATGATAGACTGGATTAAAGAAAATGTGGCACATATATGCCATG  
GAATACTATGCAGCCATAAAAAATGATGAGTTCACATCCTTTGTAGGGACATGGATGAAA  
45 TTGGAAATCATCATTCTCAGTAACTATCGCAAGAACAAAAACCAACACTGCATATTC  
TCACTCATAGGTGGGAATTGAACAATGAGAACACATGGACACAGGAAGGGGGACATCACA  
CTCTGGGGGCTGTTGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 215>:

**gnm\_215**

5 GTACCCTTCTTTAAATCTTCAAATATCTAATCAGGGGTCAAATTCCTCAATTGTCTC  
ACAATTTTTTGGGTTTTTTTGAGACAGGATCTTGTCTGTCACTCAGGCTGGAGTGCTGT  
GGCATGATCATAGCTCACTGCAGCCTTGAATTCCTGGAGCTCAAGAGATCCTCCCATCTCA  
GCCTCCTGAGTGGCTAGGACTACAGGTGTGCATCACCACGCCAGGCTAAATTTTAAATGT  
TTTTATAGAGATGGAGTCATGCTGTGTGCCCAGGCTGGTCTCAAACCTCCTGGCCTCAAA  
CAATCCTCCGCCTTGGCCTCCCAAACACTGGGATTAGGTGTGAGCCACTGTGCCTGGCC  
10 TAATTTTTTATtTTTATTTTATGGTATTTTTTGTGTTTGCTTTGTTTCTTTCTTTTTTT  
TTTTTTTTTTGGAGACAGAGTTTCACTCTTGTCTATCCAGGTTGGAGTGCAATGGGATGAT  
CTCGGGGACTGCAACCTCTGCCTCCCGGGTTCAAGAGATTCTCCTGCCTCAGCCTCCCG  
AGTAGCTGGGATTATTAGCATGCGCCACCATGCCAGCTAAGTTTTTGTATCTTwAGTAG  
AGATGGGTTTTACCATGTGGCCAGGCTGGTCTCAAACCTCCTGACCTCAAGTGATCTGC  
15 CCGCCTCGGCCTCCCAAAGTCTGGGATTACAGGTGTGAGCCACCGTGCCAGACATGAC  
GTGTTTGAATCAGGATCCAAATAAAGTCTAGATTCTACAAGTGATCAATCTTTTGT  
GAGTTAATAGGGTCTCTTCTCTCTCTCTGTAATATATTGGCTAAAGAGACTAGGTTG  
TTTGTGTTTGGGGAGTTTCCACAGTCTTGAATCTCTGGCTGCACCTAGTCT

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 216>:

**gnm\_216**

CCAGTCTGGAGTGCAATGGCGTGATCTCGGCCCACTAAAACCCCCACCTCCTGAATCTAA  
GCAATTTCTCTGTCTCAGCCTCCTGAGTAGCTGGGACTACAGGCTCACACCACCATGCC  
GGCTAATTTTTGTATTTTTTAGTAGGGACGAGGTTTTGCCATATTGGTCAGGCTGGTCTCA  
25 AAGTCCTGGCCTCCGGTGATCCACCAGCCTCAGCCTCCCAAATGCTGGGATTAGAGGCA  
TGAGTCACCATGCCCAGCCTAAACTTGGCAAGATAATAAATCACCTTTTTAAGTGTCGTT  
GGGCACTTGTCTGGTTGTTTTCTTTAGGTTACCATGCCAGCAATGATTCTTTTGAGTT  
TCTGACAGAAGATACTGGTTTTTCATCCAAATAAGTCAACTACTCTACCCCATCCCTAAGC  
CACTTGTATGGAAGAAAAAGAGGAAGAGCCAGTACTGTGACTGCGTAAGCGTCCCCCA  
30 GCATCACCGGCTATGAGATGTGTGGCAGCTGAGACCCGGGAACCTGCTCAAGGGCACCAGG  
CCCCATCTGTCTGCACTCACTCACCTTCCTCAGGTACTCGCATGGGCATGTCACTGACTT  
TACATGCTGCTGCAGCTCCTTGGTGAGCTGGCCCTGGTCATGGGACAGGAACGTGGGGT  
CAGGACAATAGAGAGCTTCACCATTTGCAGAATGAGCACAGGGGCTCATGATGAGTGCCA  
ACCTATTAGATAATTTAAAAAAAAGTGTGAATGAGTGGAAAAACAAGGTGATGTTTG  
35 AGTCTATAGTGGTCAAGGGCTTCAGAAAAGGACAGACCCAAGTTCAAATCCCTGTACTTT  
GAATTTCTACTTCATGCCATGCAAAATTACTTTACCCCTTTTAACCTCAGTTTTCTTCTG  
TGTGAAACAGGAACAATAGTTTCATTGTCATTGATTTCTCTCAAGATTTACAGAGATC  
ATACCTATAAAACATCCAAGTCATTTAAATGTATCATCATTTCTGTGATAATTAGTGGGA  
TCCATTTCACTATTATTGGATATACAGTTCTGTGCCTGAAACCTACAAAAAACAAAAATG  
40 TTAAGTCTAAAAAGCATTAGTGATTTCTCATTTTTATATTACTAATTATAACCCTATTTA  
ATCACACAAGGCCTTGTCCGCGGCAGGTGCTCAATAAACACTTGTGCAATCAATGCATGT  
GGGCTCCGGAGCCACACTGTTTAGATTCTATTCTGCCTCCACCACTTATCAGCTGTGTGA  
TCTGGGTAAGATAATTACCTCTTTATGTCTGCACTTCCCTCTCCATAAACTATATATAA  
TGAGAATCCTTAGCTCATTGCGTTGTGGTGAGGGGTGAATGATTTGGCACACAGGAGGGG  
45 CTTGTAAACATTAGCTGTGATGATCTCCTTCAAATCTTCATTTTCAGAGCCACAGATG  
AGGCCATAGTGCAACCAGGTGACCTTAGAGTGTAAGTACACATGATCGCCAGCTATGCTC  
TATCTCCACCATAGGTCCAAGACTGGGTAGTTCTGGCCTGGAGGTTTCTGCTGCATCTGC  
CTTCTCAGTGTTACCTAAGGACTTTTGTATTTTCTCTCTCGCATCCCCACAGATGGGGT  
TCAGGCTGCCGGACACAGCTGGGTGATGCCAGGGCAGTGCTCACCTGTGCCAGCCCCGTG  
50 AGGTAGCTGGAGGATCATTGTTCTCTCTCGGGCTCTGGGCAGATGCCAGGGCTGGG

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GTGACCCATGCCCTCAAGTTTCTTGCTTTGGTGGGCCACATTTTCCCTTGGCAAAGAGGG  
TAAAGGTCACAGGATGCCGGAGAGCTGTGACTTCTCTGTGCCCTGGGCCCAAATATGAA  
GACCTGACACACTATGCTAAAAGTCCAACGCTGGGTGCTCCCCAGAGCTTCTTGCTCAC  
CGCTTCTGCTGAGGGAGGAATGAATACTATGTCTCCAGAGCTTTGGGAGCTTGTAGCA  
5 AGCAGCCTCCCCAGCGCAAATCTCTTGAAACCTCTAACTGTGTCTGAAAGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 217>:

**GNMCJ31F gnm\_217**

10 CCACAAATATAACTTTAGCAAATATTTAGCATAACTATCAAAATTACAAATCATATTAA  
TTTGATAAATGTATGCAATTTTCGGAACACGCATATCAACAACATACCCATAAATATAA  
CTGAGATGAGATCTAATGTACCTCACCTTGACAGTGCCCTCCCATGCAGTATCGCCACAT  
TTGACAATGCCCTGCCCATTTAATCTACCAAATAAATCGAATCACTTAATACCTCTACAAG  
ATGAGAGATACATTCTTTAGACTCCCCAAGGGATGCAGCTGAAAAAATCCCAAAGTTAG  
TTTTAAGCCAAAAAGACTTGATTTAGGATTTTGACACTGGAGAAACCCATCAAAGATGTC  
15 AAGTTTGAAAACACTTGATCAAAACAGAATCACAGGTCATTTAAAAGAGTATTAATTT  
AACCAGAGACTTCCAAAGCAATACAGAACTTACATGGATATAAAAACCCTAACCCTTTT  
AAAGGTCAGATTTGCTAAGTGATCAAAAGGGGTACTTGAATTGAATCGACACAGGAAGAG  
TGTGTACAGGGTTATGAGTGTAGGCAGGTGGTTACTTTGGTCATATCTCCATTTGCCACC  
TGATTACACATGAGAATGGCATCTTTACTACCCAGAAAGCCAGTATTATAGGAGGTGTAG  
20 GAGGCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 218>:

**GNMCJ32R gnm\_218**

25 GTACCATTATGTTCTTAAACAAATGACTCCCCTGTCTACTAGGCATTGTTCTAGAGTG  
CTCATTGGGGGGTGGTTTGAAGACAGTGCATGCTGCTAGCTGCAGGTACTTTATTGCTGG  
TGCTTTCTAGCCCATCCTGGTTTATTCTGGGATGCCTGGTGTTCAGAACCTGGCAGGTGC  
ACATGTGAATAGGAGACACAGGGAGTTCTCAACTGGTCAGCAGCTTCCTAAAGCACAGGA  
AGTAAACTCCAGCCCTGCCACCAATGTCTTTGCCTCTCATCTGCCTCATGGGGTGTAGA  
GAATCATCTGGAGTGTGAGAGTGGGGCTCTGGAATTACCTTGACACTGGTTCAAATCCAG  
30 GCACTGCCACTTAGCAATGGTCTAGTCCTAGGTAACCTCACATAGCCTGTTAAGCCTCCAT  
TTCCCCATCTGTAAAATGGGATTGTGGAATGCCTTCCTGATAGGGCCTCACAGTGTGGG  
CACACGCTGAGTGTGCATCAGTGTAAACGATCATTCTTCTTGCAGGCTCTGTTCTGT  
ATGAGCTTCTGTTAAAGACCACCAGAAGGCCTGAGGAGCTTTTGAGGTAGGAAAATGTAA  
CTCGGCCTGGGTGCTGAACAGGCCTTTCAGAGCCTTCTGCCAGAGCAGCCTACTTTTCCA  
35 GGTGGGAGAGTTAGGCAGTCACATCTGTAGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 219>:

**GNMCJ32F gnm\_219**

40 CCGGGCAACTCTTCTGCTCGAACATGTAGGTCTTCCTCAAAGCAGGTCTAGCTTCCATC  
CATTTGCTCAGTTATTGGCTTGGCCACCTGGGCAGGTCTTTAATATAGTTCAGTGGTTT  
GTACCAGCAAATGATTAGAAATGCAAAGTATTAGGCCTCACCCCTTACCTACTATATGT  
AAAATCTGGGAGTGGGGCCCCCAATTTGTGTTTTTACAGCCTTCCACACAATGCTGATG  
CAAGCTCAACTTTGAGAATCACTAACAGAATTAACAGTCCAAGGGAATGAGAGAGCTTCA  
TTAAAATTTGCATATTCCTGTAATGATCTTGAAGGATTATACCAAGCACTCTATGCT  
45 TCCTGGTTTTCTGGGAGATAATTTACTCTTTGGAATCTTCATTCTGGTCTGAAACACA  
AGGCCAGAGTTGAGAAGGTGCTTTTAAATATCCATTACAGGAGTCTGTAAGCCAGCGGTT

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5 CACACCAAAAGTTCAAATGCTGTAAGGCCTGTGTTTACTAGCTTAGACACTGAAAAATCA  
 GTCACCTGGCTGGGTGAAGTGGCTCATGCCTGTATCCAGCACTTTGAGAGGCTGAGGCA  
 GGAGGATCACTTGAGCCCAGGAATTTGAGACCAGCCTGGGCAACATATCAAGACCCTATC  
 TCTGCAAAAAATAAATAAATTAGCCAGGCATGGTGGTGTGTGCCTTTAGTTCCAGCTACT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 220>:

**gnm\_220**

10 CCTGACCCCATCAGCAGAGCCTAGGTCACAAGCCTCTAAATTTCAAGGCCCATCACCTGT  
 TTCCCTGTGTGATTTGAAATGGGGTCAAGCTCCCATTTCTCCTTGAAGAACTGAGCACCT  
 ACTTTGAATATCTCATCAGGAAGGCATTTTATTGCTGATGGCTGGAAATATGGCATCAAA  
 TCCTTGTC AAGCATCCGGAGCTCTGCCTTAGTTAATCCAGCTGGGGAGAAAAAGGAATCA  
 CGGGGGTTTAGTTCAAGCCATCAGAACTCCGCTTGTTTTATTAATGGTGTGCATAATGT  
 TCAGATCTGAGTGTTCTAGGCAGGCATCATTCTTACAAAAGGCCCTGGAAATCACACTG  
 15 GGAATCAAGTTCCCTTCATCAACTCAGAAAAAAAATGTGGGTACATTAGCCCTGATT  
 GGCTCCTACAGTGAAACGCATGCCCAGAAGGAACCTCAATTTACACACTTTCAAATTTT  
 GTATAAACCTACTTAGGGGCAATTAAATCACATTCTAAACTAGCGGTTTTCCAACTTT  
 AGTGTAACAAGAATCTCCAAAAGAGCTTGTTTTAAAAGCAGATTGTCAGACCCACCCTC  
 TGCAACTTCAAATCATGAAATGTAGGTTCTACTGTAACGCCACTGATGTTTGCTACACAT  
 20 GGCCAAGGATAATGTTTTATTTTGTGTCCCCACATTTAAGTTTGAAAGAGAGAGAAAGG  
 TATGCTCAGGGTGAGTCTTACCTGCAATGGTCCCAAGCTCCTGCAAGACAGAACTGGTCC  
 ACTCAGTGGGATCCCCAAACACAACCTTCAGCCTTCTCTTAAACTCGGCTAAGACATGTG  
 TGCTGCAGAGCAGGGTCCCAATTCTGGCCACTACCACCCTGGTAGTGGTTAAAGAGGGAG  
 GGATATAATATGAGCTTGACTCTTCAGCCAAAAACAAACAAACACACACACACACAC  
 25 ACACATACACACACACACTGCACAGTAGGCTCAGCAGGGACAGCAGATCCAGCTTATCCC  
 ATTAGCCCAGTGGGATTTTAGCCAGAAAGGTGCCAAGTGTGAGGAGGTGGAATATCTGG  
 ATGGATGGATGGATAGATGGATGGATGGATGGATGGATGGATGAATTAACCCATTT  
 GCCATTTTGACATTCATATTTTAGTTACCTGAATTCTGAGATCTTTATAAGTGGGATTT  
 CAGTGATGTTTATAGCACACAGGGTTGCACCAAGTCTACCAATGAAAGCTCTTCAGGT  
 30 CCTGGATACTGTATCTGAATCATCCAGGTACCTTGCAAAATGGATTACAGCTAAAAAA  
 TAGTAAGAATAAAAGATAAACCATCCAGGGATGATCCAGGGTCCCCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 221>:

**gnm\_221**

35 CCGGAATCTGTCTCTTATCATGTTTTTGAACCTTGCTTTTCTTTGTGTGGCTTCATTGA  
 GAGACAGGCTCTATGCCTGCATGTGGTAGGTTCCAGCAGATCCTTGTTATATCCTTCTA  
 AGTTCAAGTCCAGAGTAAAGAAAGCTCTTCCCTAATGCTCCACTCAAAGTTCTGGTTGA  
 CTCTGGTTAAATCATGTGCAATCCAGAACCAGTGACTGCAGCTAGGCTAAGGTATGAA  
 TTGAAATTCATCACTCCTGGAACCTGGTGCAGTTAGCTTTGACTGAACCACATGAAGCAG  
 40 GAATACAAGAGAGGTGGTTCTCCAGAGGAAGTTATGAATGATGAATAGCCACTGTGCTAG  
 AATTATGGAGACTTATGTGTGTCAGCCGCCTTAAATCAAGGCTTAGTTTAAAATAGTTTAA  
 ACCAAAGCATTTTGTGTGCTACTCTTGGAATTGAAGAGTAAACATTGGAATTGAAGGGGT  
 GAACATATTTCTGTAGGACCACAGAGGAAGAAAAAATCATTAAGGGGTAAACATATTTCT  
 GTAGGACCATAGAGGAAGAAAAAATCATTCTGGCTGAAACCTCATGAAGAAGGTGACATT  
 45 TGAGTTGAACCAAGAAAAAAGAAATGTCTGCACTTGGAAGTGCAGAAGGGCATT  
 TCAGATGAAAGGACTGGTTTGAACAAAGGCAAGAGACAGGAATTTATAAGGTTTTGTG  
 GAGGTTGTGGAAGGCTGGGTGCGGTGGCTCATGCCTATAATCCCAGCACTTTGGGAGGC  
 CGAGGTGGGTGGATCACTTGAGGTGAGGAGTTGATACCAGCCTGGGCAACATGGTGAAC  
 CCCGTCTCTACAAAAATACAAAAAGCCAGATGTGGTGATGTGCACCTGTAATTCTAGCT  
 50 ACTTGGGTGGCTAAAGCACGAGAATTGCTTGAACCTGGGGAGGTGGAGGTTGCAGCGAGC

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TGTGCCACTGCACTCCAGCCTGGGTGACAGAGCAAGACTCCGTCTCCAAAAACGAAAA  
AAAAAAAAAAGGGAGAAGAACGTTGTGAAAAAGATGCTGGAAAAGTTTGATCCTGA  
TGCAGAAGAAGTTGTATGTCCAACTGTCTGAGGGTCATAAGAGTGACTGAAGGAAATAA  
GCAGCAGACACACAGGACACAAGTGCCTTTAATATTGGTG

5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 222>:

**GNMCJ35R gnm\_222**

CGAAGCCGATATATGCCACCATATAAGCGAAAAAGAGTCCGGGATTTTTTGCTCGCCAGA  
CATACACCGGTTCCGGGCATTTTAAACCGTTTATCAATCGCGCCTGCGGCCACCTTTC  
10 CATGCTTCGCGGAAACAAAATATCGGGATAAGGAAAAAACGGCAACGACAAAAACTGC  
TGTACATCCATAACTACTTTCCTTGTTTCTTTTGTAAATCAAGTAACTGTTTCGGGTGTGA  
CGGCCGGGATACCCCTGCGCATCTTCCGGTACCTGGTGCATAGCCGGAATAGGGACCAGCG  
GCCCTAAAAACGCGGTTACGTTTAAAAATATAAAGGTCAGCCAGCGCACCGAAACGGG  
CGGCAAATTCACGAATACGTACTGACAGCATATCTTTCGGTGACGGTACGGCATAACACT  
15 GAGCCTGAATCCCCATATGCAGCGCAATAAATAATGCTCGCTCACAGTGGAACGTTGGG  
TGATAATAATGAAATCATTAGTATCGAAAACTTTGCGTGTACGACGATGGAATCCAGCGT  
ACGAAAGCCTGCGTAATCGAGAACAATATCTGATGGGTCGACACCAGCAGCGATTAAATC  
TTTGCGCATGGTCATCGGCTCATTATACTTTGCAATGCGTTATCGCCGCTCAGTAATAG  
ATAATTTACCTTACCGCTGTTATAGGCATTAATCGTCCTTGAATGC

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 223>:

**GNMCJ35F gnm\_223**

CCGATGTATGTTTACGCGTTGCATAATTAATGAGATTCAGATCACATATAAAGCCACAA  
CGGGTTCGTAAACTGTTATCCCATTACATGATTATGAGGCAACGCCATGCATCCACGTTT  
25 TCAAACCGCTTTTGCCCACTTGCGGATAACTTGCAATCTGCACTGGAACCTATTCTGGC  
AGACAAGTACTTCCCGCTTTGTTGACCGGGGAGCAAGTCTCATCGCTGAAGAGCGCAAC  
GGGGCTGGACGAAGACGCGCTGGCATTGCGCACTTCCGCTGGCGGCGGCTGTGCGCG  
TACGCCATTGTGCGAATTTAATGTTGGCGCAATTGCCGCGGTGTGAGCGGAACCTGGTAT  
TTCGGTGCCAATATGGAATTTATTGGTGCGACAATGCAGCAAAACCGTTCATGCCGAACAA  
30 AGCGCGATCAGCCACGCTGGTTGAGTGGTGAAAAAGCGCTTGCAGCCATCACCGTTAAC  
TACACGCTTGTGGTCACTGCCGTGAGTTTATGAATGAAGTGAACAGCGGTCTGGATCTG  
CGTATTCTGCTGCCGGGCGCGAGACACGCGCTGCGTGACTATCTGCCAGATGCCTTTGG  
GCCGAAAGATCTGGAGATTAACGCTGCTGATGGACGAACAGGATCACGGCTATGCGCT  
GACGGGTGATGCGCTTTCTCAGGCAGCGATTGCGGCGGCAAACCGTTCGCACATGCCTTA  
35 CAGTAAGTCGCCAAGCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 224>:

**GNMCJ38R gnm\_224**

CTGATAAGACATAGCTGAGCCTGAGGAAGAAAAAGAGATGTTTTTGTGTTTGTGTTGA  
40 GATGGTGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTGGTGCGATCTCGGCTCACTGCA  
ACCTCCACCTCCCGGTTCAAGCAGTTCCTGCTCAGCCTCCTGATTAGCTGGGATTA  
CAGGCACGTGCCACCATGCCCGGCTAATTAATAATATTTATAGTAGAGATGGGGTTTCAC  
TGTGTTAGCCAGGATGGTCTCAATCTCCTGACCTCATGATCCATCCACCTCGGCCTCCCA  
AAGTGTCTGGGATTACAGGCGTGAGCCACTGCACCTGGCCAAAAAGAGGTTAATTGGAC  
45 TTACAGTTCCCATGGCTGGGGAGCCCTCAGAATCATGGCGGGAGGTGAAAGGCACTTCT  
TACATGGTGGCGGCAAGAGAAAATGAGGAAGATGTAAAAGTGGAACCCCTGATAAAACC



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ATCAGATCTCGTGAGACTTATTCATATCATGAGAACAGTATGGGGGGAACCTACCCTAT  
GATTCAAATTATCTCCACCAGTCCCCCCCCAACAACATGTGGGACTTACAGGAGTACA  
ATTCAGATGAGATTTGGGGCCAGGCGTGGTGGCTCATGCCTGTAATTCCAGCACTTTTG  
GAAGCTGAGGCCGGT

5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 225>:

**gnm\_225**

AAAAAATTAGCCAGGCGTGGTGGCAGGTGCCTGTAATCCCAGCTACTTGGGAGGTTGAGG  
CAGGAGAATCACTTGAACCCAGGAGGCAGAGGTTGCAGTGAGCTGAGATCATGCCACTAC  
10 ACTCCAGCCTGGGTGACAGAGTGAGACTCCATCTCAAAAAACAAACAAACAAAAACAAC  
AAAAAATTCACCTGGGAGGTACAAATTCAATAGGTTTGTGACAGGGCTTTGGAATCCAC  
ATATTATAAAACTCTTCAAGTGATTCCAATGTCAGCCAGAACTAGTGACCAACAATAAT  
TCACATCCCATGGAGCTCCACATGGGCACTCCTGTGAGTGCAAAGCACCTTCCGGTCTCT  
GGACACACTGAACTCAACCATGAACAGAAATACGGACTAATGTACAGCTGGTATTTGAGT  
15 TAATTATGCCAATCATGGAAAAAACAGACACAGCTTCTCACCAAAGGGTGTAACCTCCA  
ACTTCTCCTAAATAGCGCTGTTCTAAAGCTAGGCACGCCCATGTGGGCAGACTGAATTCA  
ACCTTCTTTCCCATGACCAACACTCTCCTGACCTCTAGGAAGCCACAAAATCGTTGCAGA  
GAAGGAAAAGCCTTCTATATTCTTTCCCCACCAAAAAAAAAAAGAAGAAGAAGAAA  
AGTCAAAGCCTAAAGTTTTTAAATTCTAGATTAATAAGTTGGTTTGGGCTAGTTACAAC  
20 TCAACCCTTGGAAGAATAAAGGAAATACTGTTAATTACCCCATATGAGATTTAATAGA  
GAAAGGCTTAAGGGAAGACCACCACCTAGTGACCAAAGGCAGGATGACATTTTCAGAGCA  
CCTAGCTGGGCTGGCAGGCAGCAATCTGTTTTCTCTCCAAGTGTACTGAGAAGGGAACGT  
GGGCCAGGCACAGTTGTTCACACCTGTAATCCCAACGCTTTGCGGGGCAGGAGCGGGCA  
GATCACTTGCGGTCAGGAGTTCACAACCAAGTCTGGCCAACATGGTGAAACCCCGCCTCTT  
25 CTAAAAACACAAAATTAGCCAGGCATGGTAATCTGTGGTCCCAGCTACTCGTAAGAAGT  
AATGCTATAAAGTGTAAGTGGTAAAATGCAGAAATTAAACAGTTATGCTTTTCCATTA  
GCCACGCCCTCACAGACAGCATCTGGCTTACAAAAACAAACACTGAAAGTTACAACAACA  
AAAGTGAAACATACTTCACCAACCCAAATTCAAAGCCTTGGAATAGACCAATTATGCT  
AAGTGCTAAATGACATGGCAGCAAAATTACTCATATAAGGAATCGTTTTCAAGTTTGCTAA  
30 ACTATTTTAATTCTTTCAATCTAAAGCCTTAACAAAGATGAGCAGCACTAGCTGTTTCCA  
CCCTTTGATTATGATAAACTTCATCTCCACTTTCATTAATAAACTGCTAACCATATTAA  
CAATCCTTCCGTGGAATCTGTCCACCACAAGTTTGATTGTGCTTTCTTCAGCATCTTC  
AATATCTGCCGGGATGC

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 226>:

**GNMCJ39R gnm\_226**

GGGCTTGGCTGATCCATGGAGATATCTGCAGCTTGCCAGCAGCTGAAGTCTTTATTTGCC  
TTTATCTCCGTTGTGGCCTCTGATGAGCCAGACTACAGAGATGCTGATGAAATCTGGGAG  
GCAATGGTGGAGGCTGTAGTTTCCCAGGAGAACTCTGGCCCTGGGGAATTCCTTCCAGTC  
40 TCTGAGTCCCTGTGGCACATCTCCATGTGTGGCGGACTAGGTGATTGCTCCTAGTGATTC  
TGCTTAGTTCCTTTATTAGAATTATAAGCTTTTGCCATGTGACTTTGTAGTACATCTCA  
ATAGGTAGAGTCTAATTCTTGCCTTCTAACTTTGGGCTTTGGTCATTGGAATGTGAGC  
AGACACATTTTCCCCCAGCAGAAGTTTTAAATGTGCTGCATGATTTGACTTGACCTCTTG  
GCAATTGCGTCTCATGTGAAGGGACATGTGGAGCAGACCTGAACTCAACCCAAACCTTGG  
45 AGCCAAGCTGAGCTCAGCAGAACCTAGCTGAGCGCAGCCAAGCCAAACCCAGTGTAATCA  
CAGCCAATCTGGAGACTCAGAAGCAAGAAACAAATATATGTGATAGGGATCTATTGGGAG  
TTGAGAGCAATTTCTCTTTTTTAAAGTAATTGTGATCTTTTGAGATGGAGTCTCACTTTG  
TCACCCAGGCTGGAGTGCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 227>:

**GNMCJ40R gnm\_227**

5 CAATAACTTTTTTTGTATAGCCATTTCATTGTCTAGATCAATGACAGAACACATATTTTC  
TTTTTCCCTCAAAAGCCCCGAGTGATCATTAAGGAAGGCGATGTAGATGTTTCAGATTCTG  
ATGATGAAGATGATAGTAAGTATAAAAAGGTTTAAAGCCTGGGCACAGTAGCTTACACCC  
ATAATCCCAGCATTTTGGGAGGCCAAGATGGGAGGATCACTTGAGGCCAAGAGTTTGAGA  
CCAGCCTGGGCAACATAGTGAGACCTTGTCTCTGCAAAAAACATTTTTTTTCAAATATT  
10 TTCTTAAAAAAGGCTTAAAGTAGAACTAGGCAGGGTAGTGTGTCTTTAGTCACAGCTA  
CCTGGGAGGCTTAAGTGGGTGGATTGCTTGAGCCCAGGAGTTCAAGCTCTGCCTGGTGGC  
AAGACTCTGTCTTCTTTAAAAAAGTAAGACACAGAAATACCTGGCATCTATTCTA  
ATAAGTAGACTGCAACAAATGACAACTTTTGATGTAATCTTTTGTATATTTACCATTG  
ATATGCAGTCAGTTGTCTGAATGCATTATTTATATAAATAGTCCATTTAATTTTCATTG  
ATGCTGGTGGAGAAAAGTCTTGAAATT

15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 228>:

**GNMCJ40F gnm\_228**

20 CCGGGAGGCCGAGGCAGGCAGATCACAAGGTCAGGCGTTCGATAACAGTGTGGCCAATAT  
GGTGAAACCTTGTCTCTACTAAAAATACAAAATTAGCTGGGCATGGTGGTAGGTGCCTG  
CAGTCCCAGCTAATGGGGAGGCTGAGGCAGGAGAATTGCTTGAACCCGAGAGGCAGAGGT  
TGCAGTGAGCCAAGATGACGCCATTGCACTCCAGCTTGGGCGATAGAGTGAGACTCGGTC  
TCAAAAAAGAAAAATAAAATAAAGACAGAAAAAGAAAGAAAAAGACCTAATATCATCTA  
AAATGAAATCATACAAACAACTTTTCCATGATGTTCTCAATGAAAAGATTTCTTACCAGT  
25 GTTCTCTCTGATTTTTCGAACAAATGGAAATTTTCCACCAGTATTGGCATGAGAAACCAC  
GGTGCCTTATTTTTAAAAAATAAATCAATCCATGTTGACTTTACTTTCTAGAAAAGGAA  
TAAAAAGGAAACTACCATTCTAAAAGCAAATATCGATAGACATAGGAGGCAAACAGGAA  
CCCTTACCTCAAAGAACTGGAACCTTTTTTGTGTTTTGAGACGGAGTTTCGCTCTTGTG  
CCCAGGCTGGAGTGAGTGGTACAATCTCGGCTCACTGTAACCTCTGCCTCCCGGTTCA  
AGCGATTCTCCTGCCTTAGCCCCCAACAGCTGGG

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 229>:

**GNMCJ41R gnm\_229**

35 ACCCTGATGATAAATTAACAACAGAATAAAGGTCACCTCTGGTTTTACCCTAACAAAACCTC  
AAAAGGAAGCATCAAAAGGATCAAGCTGATTTGAAAGTAACTTAAGTGTATGACAGAACAA  
AAGCCCAATACTCTTCAAAGAAATACAACATAATCAAATACTCAACAATGTAAATCCAC  
AATGCTCATCACCAATCAAAATTGCTAGGCTTGCAACAAAAAAGAAAAATATGACTCA  
TAACATAAGAGAAAAATCAGTCAACAGAAACAGACTCAAAAATGACCATCATGAGGGAATT  
AACAGTAAGGATATGAAGGCAGCTCTTATAAAATATGGAATAGTTAAAAAGACCCAGAAACA  
TCCACCCACCTGTCCCGGGGTCCATTCTGTTTGCCAGCTTAGGGAAGCCACAGTGCTAT  
40 GGAGCTGAGGTCCAGCTGCTCCAGCTCACTCTCATTAAAGAGCCAGAGCAATGCGCCCCAG  
GGAGACGATATGGTGTCTCTCCAGTAAGATGGCATGTCCCAAACCTTTAGGCAAAAAAA  
GGAAATAGATTAGACTGAACACTGTGATGGTATTTACAATGATTTGAATGTTTGTGCCCC  
TCTAAAATGCATATGTTAAACCTAATCTCCAATGTGATAGTATTGGAAGGTTGGGCCTT  
GGGAGATGATTAGGTCATAAGGGTGGAGCCTCATGAGTGGGTTAGTGCCTTGTAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 230>:

**GNMCJ41F gnm\_230**

5 CCTGATCCAAATAACAATATAACAATAAAAAACAATACACATAAAAATACAGTAGCATT  
TTGACATAACATTTTGTACATATTTACATAGCACTTATATTGCATCAGGTATTATAACTA  
ATCTAGAGATGATTTAAAGTATACATGAGGATGTGCATAGATTATATGCAAATACTACAC  
TATTTTATATAAGGGACTTGAATATCCATGGATTTTGGTATCTTTAAGAAGTCCTGGAAC  
CAATCCTTGGTGGAGGTATCCACAGGGGCAACTTCATTTTATTTATGGTTAGTTCCTTATT  
TATTTAGCTAATTGTTAGACTTTCAGGTTGCATTAAAAAATGCCTCAATGTATGCCTTT  
10 ATACATATACTGTTGGGTACTTGTCTCATTTACTCAGGCTAAATTCCCAGAGGTGGAATT  
TCTGGGTCAAAGAATATAAACTTTTAAAAGCTTTTGATACAGATAGCCAAATTGCCCTC  
TCAAGAGTATGTACCAACTTATATTCTCAACTACAACAAATGAGGGGTACCCTTACCTTG  
TATCTTCCAGTATCGTAAATGGTGATAAGTCTTTATACTTCTTGACATGTGAAGAATCA  
ACA  
15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 231>:

**GNMCJ42R gnm\_231**

CGAAACTGTCTAATGCGTAACCGGAAAAGGCGTTCACGCGChATCCGGCCACTTTCAGT  
TTTACTCTTTCTCGGAGTAACATAACCGTAATAGTTATAGCCGTAAGCGGTGC  
20 TGGCGCGTTTTAATCACACCATTGAGGATAGCGCCTTTAATATTGACGCCTGCCTGTTCCA  
GACGCTGCATTGACAACTCACCTCTTTGGCGGTGTTCAAGCCAAAACGCGCAACCAGCA  
GGCTGGTGCCAACAGAACGCCCCACGACCGCGGCATCACTACCGCCAGCATCGGCGGCG  
TATCGACAATCACCAGATCGTAATGGTCGTTTCGCCCATTCCAGTAATTGACGCATCCGAT  
CGCGCATCAGCAGTTTCAGACGGGTTAGGTGGCACCTGACCGCGAGTAATCACATCAAAGC  
25 CTCCTTTGCCAAAATGCTGGATCACTTTGTTGAGCTCATCTTTACCTGCCAGATATTCCG  
ACAAGCCATGTTCTATTACTCACGGTAAACAGGTTATGCGAATAACCACGGCGTAAGTCGG  
CATCAATAAATAACACTTTTGTATCGGACTGGGCGATCACCGCTGCCAGAGTTGAACTGA  
CAAACGTTTTTACCCTGTCTGGCGTCGCACCGGTGATCAT

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 232>:

**GNMCJ42F gnm\_232**

CCGGCAATGGCTGGAACAGAAAGAGATCCCGGATCCCTATCGTAAAAGTCAGGACGCATT  
TGAACATGTCTACGGTATGTTGGAGCGCGCCAGTCAGGAATGGGCGACGCCTCAGCCGGT  
AATTTGAGTTTATAAAATACGATGACAATAAAAATATGAATACGCCACCAGGCAGCACT  
35 CAGGAAAATGAGATCGATCTGCTTCGTCTGGTCGGCGAGTTATGGGATCACCGTAAGTTT  
ATTATCAGCGTGACCGCGTTATTACGCTGATCGCTGTCGCTTACTCGCTGTTAAGCACA  
CCAATTTATCAGGCAGATACTCTGGTCCAGGTTGAGCAAAAACAGGGCAACGCCATTCTC  
AGCGGCCTGAGCGATATGATCCCTAACTCATCGCCCCGAGTCTGCACCGGAGATCCAAGT  
CTGCAATCGCGCATGATTCTCGGTAAAACCATTGCTGAACTGAATCTGCGCGACATAGTT  
40 GAGCAGAAGTATTTCCGATTGTGGGTTCGGGCTGGGCGAGATTAACCAAAGAAAAACCA  
GGTGAGCTGGCGATCAGCTGGATGCATATCCACAATGAATGGTCAGGATCAGCAACTG  
ACACTCACGTTGGGGAAAACGGGCACTATACACTGGAAGGTGAAGAGTTACCCGTCAAT  
GGTATGGTCGGACAGCGTCTGGAAAAAGATGGCGTTGCGCTGACTATCGC

45 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 233>:

**GNMCJ43R gnm\_233**

ACCCGGCGGAAACACCCGCAGCAGCCGCTCGGTGCCGAACAGTTTGACCAGCCCCGAAAA  
CAGGACATACATCAGCCCCGCGCAATGAGGCCCCCGCCGCGCTGCCGGGCCATCTC  
CTTGATGACCAGCGCCGTCGGCGAnTAAAAGGCGAACGAACTCCCCAGGAAAATCGGCAC  
5 CTGCCCCGCGGTGACAGGTGAAAAATCAGCGTGGCGACCCCGGCCCGAACAGCGCCACC  
GAGGGCGACAACCCACCAGAATCGGCACCAGCACCCTGGACCCGAACATGGCGATGGAA  
TGCTGCAACCCAGCACCACCCGGCGCTGCGGCGGGAGATCGGGAAGGGGGGGCGGCGCG  
GCAGTCTGCGTCATGGGGAAAGTGTAGTGGGCAGGGGGAGGAGACGAGAGACAGAAACAT  
GCTTCTGCTGTGGCCTTCTTTTCGCTGCTCCACGTCCAACGGAGAAACGCAGAACGCCAG  
10 GGCCGTCGTGCACGAATGCGGnAGCCTCGCGTCTGTAGAAATCACGAGCATCCAGACCAC  
CCCACGCACTTGAGGAACACTGACCTGCACGCGCCATCACCGCAAGGTGCATAGCGCCAC  
GTTTAAAGCCCCTGCCCCTCTGGGGTAAGGGGTTTAGGGGCGGGGCAAAAAGCTAAAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 234>:

**GNMCJ43F gnm\_234**

CCCGGCTGAACAACCTGCTGCTGGTGTGATCGGGCTGGTGGTGGTGTGACGGTGCAGC  
TCGTGGGGACCACCCTCAGCGTCACCTGCTGATCACGTCCAGCGCCGCCGCCCGCCTGCT  
CTCGCGGACCTGCGGACCATGATGCTGCTCGCCGCCGCTCTGGGCATCCTCGGCGGGGTC  
AATGGGCTGTATGCCAGTTATTACCTCGACACCGCGCCGGGGGCGACCATCGTGTGGTG  
20 AACACGGCTATTTTTCTGCTGGCGCTCGCGTTTCGGCGGAAGTAAGGGCGCTTCCCTAAC  
CCTCCACGGGCAACAAGCGCAATTCGCCCGTGTCCGCCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 235>:

**GNMCJ45R gnm\_235**

GTAATCCCAGAACTTTGGGAGGCCGAGGCAGGTGGATCACAAGGTCAGGAGATCGAGAGC  
ATACTGGTCAACATGGCGAAACCCATCTCTAATAAACTACAAAAATTAGCCAGGCGTG  
GTAGCGCACGCCTGTAGTCCCAGCTACTCAGGAAGCTGAGGCAGGAGAATCACTTGAACC  
CGGGAGGCAGAAGTTGCAGTGAGCTGAGATCATACCACTGCACTCCAGCCTGAGTGACAG  
AGCCAGACTCCATCTCAGAAAAAATATATATATATATATAAT  
30 ATAAAACCAAGTCTAGGATCAGACTTCAAGTTTCACTGAGCTGGAAGTGGCTGCCAATGCT  
CCCCAGCTCTTTAGCAAAAGACATTTACACACGATATTGTATTGGAGGCATTTGGGGAAA  
ATGAAGGAAGTGGGGAGCATTTACAGGGTGCAGTGAATCAACATCAAGAGCTAATTACA  
AGAGCCGTGGGCAATGACAGATGCCAAAACAAGATGGAGGAATCAACTTTTATATAGACT

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 236>:

**GNMCJ46R gnm\_236**

CCTTCCAAGGTGCCAGCTCTGGAACGAAGGATGCCCTTGGGAGGTGATGACACTCAGGTA  
CACGGGTGCTCAACAGATTGCTTCCTCCTATCCTCAGACGGTCTTTGCATGCATGCAGCC  
ATTGGCACTCCCATTTGTGTGAAGGAAACAGCCAGGGTCACACAGCTGGTCAGCAGCA  
40 ACATAGCTGGTCTCAAATCTAAGGTGCCTGACCATGCCTCCATGAGGGACCGCCTCCAAG  
GGAGGTTGATCCTGGCTTTGGGGAGCCTTTCCTGGGCTGCACGAATAACCTCCATTGTTC  
GAGACCCCAAACTCTGCTCACATCTTCCTTTCCCTATCTCTGCTTGGGCTATGATCACGG  
TGAATCTAGCAGCCCTTCATGACATTATAGTACTCTCTGCCATTCACTTTTGTCTAAT  
CTGACTTCAACCCCACTTACTTGGTCTCTCCTTTTACAACCACCAACCGAAATCTAG  
45 GGCTGCTTTTAAAAAATTATTTTTTGGAGACAGAGTCTCATTCCATTCTGTACCCAGGC

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TGGAGTGCAATGGTACGATCTCGGCTCACTGCAACCTCCGCCTCCCGGGTCCAAGGGATT  
GTACTGCCTCAGCCTCCTGAGTAGCTGGGATTACAGGCGTGTGCCACCATGCCTGGCTAA  
TTTAAGTATTTTTAGTAGAGACGGGGTTTCACATGTTGGTCAGGCTGGTCTCGAACTCCT  
AACCTCGTGATCGCCTGCCTAGCCTCCAAAGTGCT

5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 237>:

**gnm\_237**

CCTGGTACATTTACAAAAATTAACCTGACTTATTTGTTCCAGCAAATCTCAATATATTT  
GAGAGCAATCAAATCACACAGCATGTTTCTGATCATATAACTGTGCTAGAAGTCAATGAT  
10 TAAAAGCTAATTCAAATATTATTTGCTTGGAAATTCAAAGTGCCCTTATAAGACATAA  
ACATAAGAAAAGAAATCCAAAATGAAACAAGATTGCCTTCAACTCAATGATGAGATCATAA  
CATGGCAATAAAATGTCTCCCTCTGGCCTGGGAATTCCTCTTGTGGCACAAGGTTGTGT  
GATCTCAAATCACCGCTAACCCACCTAGACATTTTAACATCCGAAACCGAGTGATGACGT  
CCTTATCTATATCATCTTACTGCCTGTGTGTGTGGACTTTAAATTCTGAACCCAAATGAG  
15 GGGGAGAAAACCAAGTTGACTTTCATGACTGAGCTCTCAGGGACGTCCAAGGAATCTGTG  
CATTTCAAGAAACAAAGTTCATCAGCTTCTCTCCTAAGGTATTTGCCACAATACCCAGA  
GGGcTTGGCAGCATCATGTGTGATGGGTGGGGAGCTCCAAGCAGGTGGGCAGGACCCAGG  
GGCCTGGTGACCAGGACAGACCCCACTGTCCATCACCTTsCTGGCCCTGTCTCTGCT  
AAACTTCCACAGGCCTTCTGCACGATCACACAGAGTATGCCCAAATCTCTCAGGCCTC  
20 TGGCAGCTGAAAACAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 238>:

**GNMCJ47R gnm\_238**

CGGGGGGAAAAAAGAATAAAAGGATTTAAAAATACAACCTATGTTATTTTGGGATGGAAA  
25 TTCAATCTGATATACACACGTTCAAGGTGTCCAGATTAGTGCCTTATATCACACCCCAACA  
CAATACACAATTATGGTGCAAGCCTGTAACTGACCTAGGTCAATGAAGGAATTTAAATAT  
AATAAACCAAGCCCCCTTTTACTACATACTTATATAAAATCGACAACCTATCACATGATGCT  
CTATGTCAGGTAGCCTCAACAAATTCACATTTATTCTAGCTCTGATATGGTCTGGCTCT  
GTGTCCCCACCCAAATCTCACTTTTATAATTTATTTTGTGAGGCAGAGTTTGTCTCTT  
30 GTTGCCAGGCTGGAATACAATGGCAAGAAGTGGGTACCCGAAACTCCGGCCCCCAGG  
TTCAAGAGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACAGGCATGTGCCACTG  
TGCCAGCTAATTAAGTATTTAAAGTAGAGATGGGGTACTCCATGTTAGTCAGGCTGGT  
CTCGAACTCCTGACCTC

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 239>:

**GNMCJ47F gnm\_239**

CGGGTCAGGAAGGGATTCTACGGAAGTGATTTTCCTGTTTGGCCTTTCTTAAGGGCAG  
ATTATAATTATAAACAGTTAAACTTTGTTTAAAGGAGGCCCGCACTAAGGTGCAGTGGGA  
ATGAAAGGAAGTGGTAGATTCTAGTGACATTGTGAGGAAAGGTGAAGTGGTCTTGAGAC  
40 TGGTTTGGAGGAGGGGAGGCAGACAGTAAGGGAAAGGAATCCTTCAATAGTTGCTCCCTG  
TGAATCGAATCTTGGTGTGCCATTAATGGTAGTTAGAAATATGAAGAGGAGGCTGGGT  
GTGGTGGCTCACGCATGTAATCCCAGCACTTTGGGAGGCCGAAGCGGGCGGATCACGAGG  
TCAGGAGATCGAGACCATCCTGGCTAACATGGTGAACTCTGTCTCACTAAAAATATAAA  
AAATTGGCCGGGTATGGTGGTGGGCACTATAGTCCCAGCTACTCGGGAGGCTGAAGCAGG  
45 AGAATGGTGTGAACCTGGGAGGTGGAGCTTGCACTGAGCCCAGATTGTGCCACTCTGCTC  
CAGCCTGGGTGACAGAGCAAGACTCTGTCTCAAAAAAAGAAAAAATATGAAGAA

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GAGGCAGTTGGAAGAGTAGTTCCATCTTGGCCAGGTTCAAGTTGCTGGTGGGCAGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 240>:

**gnm\_240**

5 CGGTAGGTTTCAGTTCCAGCTCTGCCTCTTATTGACTGCAACCTCAGGCTTAACTTTTCAG  
TCTCTGAGCCTCAGTTTCAACTCTGTAAAATGAGGTGGCTATACCATCTCAGGTTGCAGA  
GAGAATTAAATGAAATATAAGTGCATGTAGAGCATTGAACCCAGGGCCTGGCACACACAG  
TGAGTACACAATGTTAGCCAGGTAGCTTCATAATGCATACTGATTGTCAATATTCAGACA  
ATGCAGTAAAGTGTTACCAAAAATAAAAGTAACTTATTTGCATATGTATTCTTTCAATC  
10 TTTATTTTTTAAACAGGGTAAACTATGCATATTCTTTCATAGCCAGTGTTTTCTCTTCA  
TAGTATATTGTTAAATAATTTTACTTGGACCGGGTGCAGCGGCTCACACCTATAGTCCC  
AGCACTTTGGGAGGCCGCGGTGGGCAGATCACGAGGTCAGGAGTTGACACGAGCCTGGCC  
AATATGGTGAAACCCCATCTCTACTAAGAATACAAAAATTAGCTGGGCATGGTGGCACAC  
ACCTGTAGTCCCAGCTACTCAGAGGCTGAGGCAGAGGAATTGCTTGAACCCGGGAGACAG  
15 AGGTTGCAGTGAGCCAAGATTGTGCCATTGCACTCCAGCCTGGGGGACAGAGTGAAACTC  
TGTCTCAAAAAATATG  
TGTGTGTGTATGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 241>:

20 **GNMCJ48F gnm\_241**

CCTGACTCAATGTCACTCAATTGATTCTGAGTTCACTGCTGATTACATCCGACCAAACCTG  
CTTTTTCTGAAGTCTACTCCGTTTAAATCATGCTGGTGATGATTTTTGTGCGGCTCTGGGAC  
AAACTCCACCTGGCTGAAGATAAAGCAAATCTGCGGTGACTTAGTCCTCCTGTCATTTCC  
25 CATCAGTTCCCACTCTCCTCCTCTGCCCCCTCCACAGTCTCCCATGCAGGCTGACACCAT  
ATGACGGCCTTAATGGAGTCCACCGAGTATTTAGGTTCTCTCCTGGGCCACTTGAAAGT  
GGATGTACCCATGGGATTTGCTTTGACCCAGGAGATGTGCGTGGAAGTGAAGCGTGTCAC  
CTCGAGGCAAAAGAGTTGGGAGCCATTGAGACGGGCCACTCTCTCCTTCATCTCTTAGAG  
CAGCTGACAGCTCCCATATGGAGGCTGCTCCTTTATTCTCGTGGCAGGATGAGGGCATGT  
GGGGCACAGGGCACAGGAGAGCCATGGAGGATGTGCAGCATGGGCAGGAAAAGAGCCTTC  
30 AGTGGTGATACATTTCCATAGTTTGGGGCTGTTCTTACCTACAGTGATACCTAGCCCATC  
CTAACAGGCATGCACCATCTACTCCACACTCTGTGATGCAGACTAGCCTGCCGTGAGAAC  
ACGAAGTGGTGGTCAGACACAGGTAGGTTTCAGTTCCAGCTCTGCCTCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 242>:

35 **GNMCJ49F gnm\_242**

AAGTAAGTTCCGAAAAGTACATTTATATGTCACCATTACTAATACACTTGGGGTAAGGTG  
TATTCTCAAACCTAATGTTTCATCCAGCCAGTCAAGGTGCCTTGGAAATTGTGTACCCTC  
CTCAGCCCAATAGACCTTGGGCCCTCTGAAGAAAACCTATTGGAAGAAAGTTTCAAGTGGGC  
AGTCATGGGATTGTTTTAGTGTGGAAGGGCTAAGAAAAGAAAAGAATTGTGGACAACCTA  
40 AGATCACATCTCTGATGTGAGCAAACATGATTTAAAGGGATTGTTGGCTATGAACCAAAA  
ATCATTTAAGGGTATTTTTGTACTGGAGAAGGCCAAGGACAAAAGATATAAAGTTTCCCA  
TCCTTGGGATCATGAACTCAAAGCAAAAGCAAAATGGATTAATAGCTACTTCTATTTATA  
GCTACTTCTGTTAATAGCTACTTGAGCATGAGCAATGGTTAGATTTTAATTCTAGAGTTT  
ACAGTGGAGAAATACACACATTCTAGGATTACTTAACTCACTAGTCAACCTGTCCCTCTC  
45 CTTATGATGTTGACCCAATGACACTAAAATCCCTTGGGCATCATGATTCTTGAATGCGGT  
CTCCAAAGAATGCTGCCAACACAAAGGGGATCATGAAGAGACTGTGGGCCTTGCTTCCAA

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TTTTTCTTCTTCTTCTTCTTCTTTTAAAGTCATATGTGCCCTGACTCTTCTGGCCAGTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 243>:**gnm\_243**

5 GTACCCCTACTAAAAACACAAAATTAGCCAGGCATGGTGGTGCATGCCTGTAATCCCAGC  
TACTTGGGAGGCTGAGGCAGGAGAATCACTTGAACCTGGGAGGCAGAGTTTTCAGTGAGC  
CAAGATCGCACCATTGCACTCCAGCCTGGGCAAAAAGAGCGAAACTCTGTCAAAAAAAG  
AAAAAGAAAGAAAGAGAGAGAGAGAGAGAGAAAGCAGAGAGGCTACTGCAGAGAAAAGTC  
TAGAAGGATGGGTTTCATGGGTTTCATCGAGAGACAATAGCTTAACAACCAGCACACCATAG  
10 TTGGCAAAACACTATCATTGAAAAAAAACATGCTCAAAAGGGGAAATGCCAGTTTGGGT  
AAATATGCTTTTGTGTTGGAGAGAAAGAATTTGGAACAGGCTTTTCAGACCCCTTAAGG  
CCCAACAAACAAATTATAATTTAGACAAGTCTGGGATCTTTCACAGCTCAGCTTGTGGTG  
ATGGTATTAGCTTTCACAACTCCAAACAAGTTAAGCTGTCTGTGTGAAATCTCCTCAACAA  
CACCTCACTGGCAAACCTGGAGGTGCTGAAAACAGAGCTTTCAATTCTTGTGTTGCAACCA  
15 AGGGAGTTGAGTTGGCAGATGGGCAGTGTGTCCAGCCTTGGGAAAGGACATCGCAGACTT  
TGCATCCTAAGAAGCTCATAACCACAACGGCAAGGTAAGACACAAGCTCTTGAAAGTTTCC  
ATCAGAGTGACAGACAAATGACCTTGGCTATGTGCCCTGTTATTGCTGGTCCCTGCTTAA  
AAATCTCCTGTGACTTCCAACACACAAATTTCCCTACCTGGTTGCAAAAATGCCCTTGAT  
AATTCACCCCTCCCTCTATCTTGCCCCCTTTACAATGTGGCTTGGCAGCTCCTCCCATCA  
20 AGAGTTAAATCTATTTCTCACCCCTTGAATCTAGGCTGGCCATGGGACTTGCTTTGGC  
CAATAGATGTGGCAGAAATATGGCGTGACAGTTCTAAGCATGAGTCTCAAGAGGCTTTG  
CATGCAGCAACTTTCTCTTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 244>:**GNMCJ54R gnm\_244**

AGGCCAAACCCCTTAGGTTTTAGGGTTTTTTTTCTTTTTTGAGATGGGAATCTCCCTCTG  
TCGCCAGGCTGGAATTCAGTGGCATGATATTGGCTCGCTGCAGTCTCCGCCTCCTGGGTT  
CAAGCAATTTCCCTGCCTCAGCCTCCCGAGTAGCTGGGACTACAGAAGTGCCTACCACA  
30 CCCGGCTAATTTTCGTATTTTAGTAGAGACGGGGTTTACCATGTTGGCCAGGCTGGT  
CTCAATCTCCTAACCTCATGATCCGCCACCTTGGCCTACCAAAGTACTGGGATTACAGG  
CGTGACCCACCTCACCTGGCCAAGTATTGGTTTCTTAACAGATTTTGCCATTGGACAGAA  
CGGACCTGATAGAGCAAGATGTCAAAGACTCCCTGACAAGTAAAAAGGGGCCAGGCAT  
GGTGGCTCACACCTGTAATCCAGCACTGTAGGAGGCCGGGGCAGGTAGATCACTTGAGC  
35 CCAGGAGTTTGTAGACCAGCCTGGGCAACATGGCAAGACCCCATCTCTAGAAAAACAAAA  
TTAGTGAGCAGCACAGGCCTGTAGTCCAGCTACTTGGGAGGCTGAGGTGGGAGGATCCC  
TTGAGCCCCAGAGGTGGAGGCTGCAGTGAACCAAGATCACGCCACTGCATGCTGGCTGGG  
GTAATAGAGCAAGACCTATCTAAACAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 245>:**gnm\_245**

40 CAGAACAAAGGGGTCTGGGAAGAATGACAGCATGACTGAAGGGCTCCGTCTGGAAAGGAA  
GGATAGTGTGCCACCAGGAGAAGGAGAGCCACCCAGACACCAACAGCTGAGACAATCCC  
AGCCCTGGGTTTCATGGCCCAAAGTCACAGCCCACTACCAACCCCAAACATACCCCTyT  
GTGACATGTGGCTGAGCACCAGACATCTTCCTCTCACCTTGCTGAGGATACCTTGCTGCT  
45 GGGCAGGTGACAAAGTCGGATACATACTGGGAGACGGCACTTCTCAGGACCTGCGAGATGT  
CCTTGCGTTTCATGCTGCAGAAGGCCTGGGTGCTGACCCAGCCAGCAGTGCGCCCATCT

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GGCTGACATTGTAGAAAGACAGCACCTGGAAGAGGAGCGGTGCGCAGTCAGGCTCTGCTC  
CCGCCTTTACCTCTCCAACGTGCACTCAGCCCATCTATGTGCCAAGTATAGGGATGGGT  
GACACCTTAGGGGCACAGCAGTGAGCCAGACAGATGCTGCCTCCACAGGCCTTCCTTCCT  
TCTATCAAGAAAGAGAGTTGGCCAGGCATGGTGCTCACGCCTGTAATCCCAGCACTTTGA  
5 GAGGCCAGGCGGGTGGATCACCTGAGGTCAAGAGTTCGAGACCACCTGGCCAACATGGTG  
CAACCCCATCTCTACTAAAAATACAAAATTAGCCAGGCATGGTAGCAGGTTCTGTAAAT  
CCCAGCTACTTGGGAGGCTGAGGCAGGAGAATTGCTTGAACCCAGGAGGCAGAGGTTGCA  
GTGAGCTGAGATTGTACCATTGCACTCCAGACTGGGCAACAAGAGCAAACTCTGTCAGA  
AAGAAAGG

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 246>:

**GNMCJ56R gnm\_246**

GACTACAGGTATGCACCACCATATGCTGCCCAGGCTGGTCTTGAACCTCCTGGAGAGAGAT  
ACATACACACACACACACACACACACACACACACACACTTTTTTTTTTTTTTTT  
15 AGACACAGTTTCGCTCGTCACCCAGGCTGGAGTGCAATGGCACAATCTTGGCTCATTGCA  
ACCTCTGCCTCCTGGGTTCAAGCTATTATCCTGCCTCGGCCTCCCAAGTAGCTGGGATTA  
GTAAGGCACTGCCACCATGCTGGCTAATTTTGTATTTTAGTAGAGACAGGGTTTTGTC  
ATGTTGGCCAGGCTGGTCTCAAACCTCTGGCCTCAGGTGATCCACTTGCCTCGGCCTCCC  
AAAGTGTTGGGATAACAGGCATGAGCCACTGCGCCGGGCCCCATACATATGCATTTAAAA  
20 AATTTATTTATTTATTTTCGAGACAGGGTCTCACTCTGTTGCCCCAAGCAGGAGTGCACTGG  
TGCTATCTCCCAGGCTCAAGCAATCCTCAGCCTCCCGAGTAGCTGGGACTACAGGTGTGT  
GCCATCACACCCAGATAATTTAATTATTTTATTTTAAATTTTTTGTAGAGATGGAG  
TTTACCCGTGTCACCCAGGCTGGATATTTTGTATTTTGTATAGGCCTGTACAGTTTCCA  
AAGTTGCAACCTTTCCCCCTCCCTGAGAGTAGGG

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 247>:

**GNMCJ56F gnm\_247**

CTGTTTAACACAGTAAGCAGGAGCTCGATAAATATTAGGAATCATATTACGCTAATTGTT  
TTACAAGGTTTGCTTCACTTACACGTATAAATTAATGAAAAACATAGCATCCTAATGAC  
30 TCTGAAAGTTAAACGCCAAGAGTGCTATGGGGGTTAGGGATTTTAAAGTGAGCAAAAT  
AAAGACTGCGAAACAAATACGTGTGTGCAAAACAAATTTCAAACAAAAAAGATGTAATATT  
CAATTTGCCATGAGTGACAACGTTCCGGCTGATAACCCACATAGCCCAGGGAAATCCCTTC  
CAAATTTGGACGAAGAAGAGGGAAGGAAGAGGGGTCAAGGCGCAGAAGGCAGTACCCAGG  
CCTGGGAAATCACGAAGAGACACAGTCGGGAAAGTGGGCCTCCAGAACAGAGAACATACT  
35 CACTTTTCCAGGCCCCACCCATGTCTATTACCCAGTTAGGAGGAATGAGCTCATTTCTGT  
GAACGTGAGATGACCCTCGACCCCGTCTCCTATCACACGCCATTAGCTTTGTCCACAT  
CCTTTCAATCCGCTCCTCTAAGCGCGGTCTCTGAGCTTTGGTCCCAGACGCGCAGAAGGAA  
GCGGCCTGAATCTTACCCAGTCCTCGACGCGCCAGCGTCTTGACTGCAGAGGACGAAGC  
GGCCGCATCTCCCGACAAACAACGTGTGAAGCAGCGGTGCCGCCATT

40

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 248>:

**GNMCJ57R gnm\_248**

CAAAATTGGTGCTTAACGAATATTTGTTGGGTGGATGAAAGCAAGCACTGACTGTCAACT  
ACTATCACTGGGGGTGATTAACCTTTGTCTCCTCATGCCTGGCCCCAGTCTGCACTTAGTA  
45 GGTGCATGGTAATAATAATAAATATCTAACACTTGGACAGGCATGGTAGCTCACATCTA  
TAATCCCAGCACTATGGGAGACCAAGGCAGGAGGATCACTTGAGGCTCAGAGTTCAAGAT



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CAGCCTGGGCAACACAGTAAGACCCCTATCTCTACAAAAAATAAAAAATTATCCAGATGT  
GGTGGTTCATGCCTGTAGTCCCACTACTTGTGAAGCTGAGGTGGGAGGATCCCTTGAGT  
CCAGGAGGTTCGAGGCTGTAGTGAACCATGATTGCTGCACTCCAGCCTGGGTGGCAGAGCG  
AGGCCCTGCCTCTATAAAATCAAATTTTAGGCCGGGGGCAGTGGCTCACGCCTGTAATCC  
5 CAGTATTTTCGGGAGGCCAAGGCAGGTGGATCACCTGAGGCCAGCGTTCAAGACCAGCCTG  
GCCAACATTGTGAAACCCGCTTTACTAATAATACAAAACCTTAGCCAGGCGTGGTGGCAC  
ATGCCTATAATCCCAGCTAGTCAGGAGGCTGAGGCAGGAGAGTTGCTGTAATCTGGGAGG  
TGGAGGTTGCAGTGGGCCGAGATCATGCCGCTATACTCCAGCATGGGTGACACTCCAGCA  
AGACTCCATCTCAGGGAATAAAAAAATCAAA

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 249>:

**GNMCJ57F gnm\_249**

CCAGAAATCTGCCCCATGATCCAATCACCTCTCACTGGGCCCCACCTCCAACACTGGGG  
ATTACATTTCAATAAGATTTGGGTGGGGTACACATCCAACTATGTCAAATATAAAGTTT  
15 AGTAAAAACTTAGAAATAGCACCAAAACCAAAAAAGGGGTAGGTACACATACATTTTTTTT  
GTTTTTTTCTGAGACAGGTTGTACTCCCATCACCCAGGCTGGAGTGCAGTGGCATGCTC  
TCGACTCACTACAACCTCAGCCTCCTGGGCTCTGGTGATCCTTCTGTCTCAGCCTCCTAA  
GTAGCTGGGATGACAGGCTCATGCCACCACGACTGACTAATTTTTGTATTTTTTAGTAGAG  
ATGGGGTTTCACCATGTTGGCCAGGCCAGTCTTGAGCTCCTGACCTCAAGTGATTTGCCT  
20 GCCTCGACCTCCCAAATGCTGGGATTACAGGTATGAGCCACCACACCTCGCCTAACCTA  
CATTTTTTGTGCGATATTACCAGATTGCTCTGCTAATAGTGCACAGTTTGACAGTCCACG  
GAAAAATGAATGTGCCCAGCATTAAGTATTAGCACTTCATTTTATTTTTGACAATCTGAT  
GGGTGAAAAGTGATTTACTTATGTTTTTTAGACTTTATTGGATTTTCATTGAAGTTGAGT  
ATCATTTTTATAGGATTCTATATAGAGACCACATTAGTGGGACTAGGGGATAGAT

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 250>:

**GNMCJ59R gnm\_250**

ATCAGAGTCACTTTCATCTTCTGTGAAATTTGCAAAGATGCTAGGAGGTTCCCTCCTGCT  
GGGACACCCAGCCCAGACACAAACCATTAAATCACAATTACATGGAGTTTCACTGTCTG  
30 CAAGGCTGCTCCATTTAAGCTCTGGGTGATGAACACATAACTCTAGGCATACTGACACTA  
GCTGGGAGATTTTCCACCAAAAAAAAAAAAAAAAAAATGCCATTTTCATGACTATTAATCCA  
AAATAGGTAAATGTGTCTGGCTTATAGAATACCAGCCTGATTACAAATGCTTGGTGTGG  
AATGGCCCAGCTCACAGTGGTTGTAGAAGTCCAGTAGGCCAGGCTTGTGGCTCACTCC  
TGTAACCCAGCACTT

35

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 251>:

**GNMCJ59F gnm\_251**

CCGCCAAGCCGGGCTCCGCAGTTGAGGCGCGCGGGGGCCTGGGCGGAGGACTCACGGG  
GCAAAGCGCTGGGGGAGCGGGTGGGCGCCACCGCTGGGCTCCCTAGGGAAGGGGTGCA  
40 GGTGATGGATGGCGTGGGGACAGACCGAGAGAAAGAGGGTGGGCAAAGTGTGGGTGCAG  
CGGCTTTAAGGGCTCCTGGGATTGGAGGGCACTTGGAGGGGGGGGACGATGAACTTCGA  
GAAAAGGGATCCAAAACCTACTTAGTAATATAATAACAGCGATGACAACCTGTTGCAATAAC  
TATCACAAATGATTATTTGTTATAATAATATAGCAGCAGTAAAAACAATAGCATTAGTAAT  
AATAGCTACGATTCAATTGCATTCTTATATGTGCCAGTGCTGGGCTTAGTTCTTTATGTAT  
45 TTTATGTATAAAGTAATGCCTACCTCATAACAGTTGTGTGGAAGAAATGGAAAAATGCAG  
GTAAGGCCGGGGCTCACACCTGTAATCCCAGCACTTT

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 252>:

**gnm\_252**

CGGTACCCGACCATCATCATCGTGGGACTGACTTTGGTGGAAGTCCTTGGTTACATGTCA  
5 TTATTGCATTTCCGACAAGTTATAAAGTTGTCATTACCCTCTGGATAGTTTACCTTTGGG  
TGAGTATACTAACTTTCTGTAGAGGTATACTTGTAAATCACAATAAGAATAAATTATATA  
AAACAATTCACATTTCTGGACTTCATTATGAATATGTGGTTTTACCCAAAAAATCAGGGA  
AATGATTTATTAGTATAAGAATTATGAAAACATCTGCCATTTGCATTATGAAAATTAAAT  
AGGTCGGTGTTTTGTTTTAATAGAATGTCAACAGAGCTTTGGTCAAAAATAAGTTTTTTTA  
10 ACCTTTGTGCTATTTATCACAATGGAGTATGAGGTTTCGTCACTTAAATAGGAAAATTCT  
TTCTAAACTCTTCTGCTTTATAGTTCTATCGTATGGGTGGAAGGAAAGCTTCCAATCTCC  
TCTCTGAAGATTCACTGCAGAAATGAGCTGACAACAGACAGCTTAACAGGAAAAGAAAAA  
CATAGAACAGGCATAAACATGGGAACAGCTGAAAAATGAGACTGCTAGAAGGGCCGGAT  
GGCTGATGCTTAAAGAGCACCTCTTCTGAGGGGAGAGGGAGATAGATGGAGATGTAGGC  
15 CATTTAGAGGGGCAGCAAATGATTTTATAGGGGAAATGAAAGAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 253>:

**GNMCJ61F gnm\_253**

CTGCTTCAGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCACACCTGGCCTGAAA  
20 TAATATCTTTCAAATTCCTTGTAGAATTTGTTTTTTCCTGATTTCTGCACATAGGATAAA  
AAAAAATCATGTACTAGGATTTTCGAGAGAAGCAATGGGTAATCTAAAAAGATGAAAAGA  
GCAACCACGTCAATCCACAGCTACTGCTAGATTTTCATAGGAAAGGTAGCTGGCCAGTT  
TGGAGCTAGGGGAAATGTCAAACACATGAAGAAATGAGAAGCCAAGAAATGCCATCACGC  
ATGAATGCTTCATGGCACCCTGATGTCCCTGCTAAGGAGGTAATGGTATAGATGACTAG  
25 ATGACAAGGACAAAGATGAGAGGTGCGAAGTTGTCCAAGTCCAACAGCTCAACTGAACTT  
TCCTAAGTGAATTTGTTAAAAAGTGGTAAATTTAAAAACTTCACCTGGCTCACGTGGTGG  
CTCACGCTTGTAATCCAGCACTTTGGGAGGCTGAGGTTGGTGGATCATTTGAGGTGGG  
TTTTGAGACTAAGCCTGGCCAACATGGTAAACCCC

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 254>:

**GNMCJ63R gnm\_254**

CGGCGCAAATCACCTGGATGGGTGTGAAAGATTCCGACCATAACCGGAAAGACGGAACGC  
GCATTGAAACGGAAGGCGACGGAAATGTGCAAACGCGACTTGGGGTGAAAACCTACCTGA  
ACAGCCATCACCAGCGTGACGATGGTAAACAGCGTGAGTTCCAGCCTTACATTGAAGCGA  
35 ACTGGATCAACAATAGCAAAGTCTACGCCGTGAAGATGAATGGTCAAACCGTAGCCGTGA  
AGGTGCGCGTAATCTCGGTGAAGTACGTACCGGGGTTGAGGCGAAAGTAAATAACAACCT  
TAGCCTGTGGGGGAATGTCCGTGTGCAACTAGGTGATAAAGGCTATAGCGATACTCAGGG  
CATGCTGGGAGTGAAATATAGCTGGTAAACCGTATAAGCCGCATGTGAGATGGCATGCG  
GCTTAATATTGCCGACTTCAAACGGCGCATCAACGCCTTATTTAAATCCTCCTTTTTATC  
40 CGCGATCGCGGATATCGCAGCGTTTATCCCGTAGAGCGGATAAGATGTGTTCCAGATTG  
ACTTATCCTCACTAAAGGATAAAACGCATAAATATCCCTTAAGCGGATAAACTTGCTGTG  
GACGTATGACATGATGAGCTTTCAGAAGATCTATAGCCCAACGCAATTGGCGAATGCAAT  
GAACTGGTTTCGCCAGCAAAATGGCTGGACGCAGAGCGAGCTGGCGAAAAAATTGGTAT  
TAAGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 255>:

**GNMCJ63F gnm\_255**

```
5  CCGGCTTAACCGTCCATGCAACCTCAACACATTGCTTTCAACTGCCGTCACCACGTTCTC
   CGGAAAATCTGTCCGTAATGAAGTCTTCACGTTATCCAGTGCTGCTGGAATCATCTCTGGC
   AAAGTCACTCAGGATTTTCATGCATCTGCACTTCCGGGAATCTCAGCACCTTTGCTGTCCG
   CAAAAAATGTCCGGGATAAATTTTATCGATTGCCGTTTTTTTGCCTTTGGATGCGTTAAG
   CCCCATTGCCAGTTTGAGATCGCTGATGTGTATTCCCGTACCGCCAAGGACCGGAAATGC
   TGAAATGATGTCTGTAATAATGGCGTGAGTCGATAACTGCCGCCAGCCTGAATAAATACGGA
10  GAAGTTTTTTGCATGACCGTCCGTTGCGCCAATCAACCACTGGAAGACCTGGAATTTTCAT
   AAAATCATAGCGATCTTTAGCGCCTCGCTGGACCCCATCAAAAAGCCATGATCCGCGC
   GATGCCTGGGCTCCATCTGATTCATATTTACCGATGAAGGTAAACCGAATGTCTGACA
   CATATCCTCCTGTGGCAAGCGAAGTAAAACCGTTGCTCAGCATTCCAACGCCTGTCAAA
   ACGTTTCGACCGCTAACGCGCGCACATTTCCCGCTTAAATGATTTCTGCGTCCGGAACATT
15  CAACCCAAGTTCTTTCCGCCAGCAGCAGACAGTAATACTCATTATCACCGCTTTGGCTGAG
   ATCGAGCGTC
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 256>:

**GNMCJ68R gnm\_256**

```
20  GTACCCCATACAGATCACCTGGGGATCTTAAATGCAGATTCTGATTCAGGAGCTCTTGGT
   TGAGGCCCAGGACTCCCATCTTCCTCTTCTTCCTCCTTCTTCCCTTGGCCTCCCAAAGTG
   TTTGGATTACAGGTGTGAGCCATTGCGCCAGCTGACGCTGCACCTCCAACAAGCTTCCA
   GGTGATTCTGGAACCGCTGCTCTGGTGAGCACACCTGGAGCGGCAGGAGATAAAGCAGTG
   GTTCTCAAACCTGCCCTCTAGATTAGTAACATCCCTGCCAGGTGCCACCCCTCAGAGAATCT
25  GATGTTATTGTTCTGGGGTGTGGCCTGAGGTATGGCCTGATTTTAATGCTTCTCAGGTGA
   TTTCAATGCAGCCAGGATTGAGAACACTGGATTGCAGGGTGGTTATGAGTTCCCAAGACC
   AGATGAGCAAACACGCTCTCTCTCATTTTCCCTCCTCTCCATCTCTCTCTTCTTCTTCC
   AGTCAAGTCTCAATTCTACCCCTTCCATTCCACTTTTTGTGGCCCTTTTCAATTTGCTT
   AAAATCGAAACGATGACATGAAAATAATATTAAATGAAATTTTGATAAAGCCATCAATAA
30  TTTCACAGCAGTATCCACACATCACCATAAAGTCCCCAACACATTGACATTTGAGAG
   TGTGGTCATCTATTTAGGTCAGCGCAT
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 257>:

**GNMCJ68F gnm\_257**

```
35  CCTTTACTCTTCTTAAAATTATCTCTTGACCTCTTTGCACATTTCTATGATCATTTTAA
   TAATTATTTTATTGCAATATGCCTGCCTAATGATAGTAAAGTGTGCGTTACAGCTGCTTT
   CGGTAAGGAATGTGATAAAGTCACCTACTATACAATGAGCTCTGTAACAAAAACAAGAA
   TGGTTTCATATTTTAACACCCGAATTTACGTAATAACGTAGTCATTTCAGGCAGGTGCACA
   AAACGGGTTTCTGCAATATTGAAATAGCCACTGGGGGGCAGCAGAGTGAAGTAGAAGAA
40  ACAACTGTCAAAGCGCCTGGGTTCTCTAAGTTTCGGCAACTGCCTTACCTAGAAATCAGTT
   TCCACATCTGTAAACGAAGGGGTGGACTACAGTGGCAGCTCCCAAAGTGTGGAGCACAC
   CCAGCGGCATCTGCAACACCTGGGAACCTGTTAGAAACGCAGATTGCCAGGCTGCTCCCG
   GACCTCCTGAATCAGAGACTGGGTGGGGCTCCGAAATCCAGGGATCCCCAGACTCCGGGT
   CACAGATGGGGACCAACCGGACCCCTGGCCTGTAGGAACCAGCCACAGCAGGAGGTGAGC
45  AGCAGGCCAGTGAGCATTACCGCCTGAGCTCTGCCTCCTGCCAGATCAGAAGCGGCATTA
   GATTCTCCTAAGAGCAAACCCCTATTGTGCACTGTGCA
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 258>:

**GNMCJ71R gnm\_258**

5 AAAGTTGGAGGGTACTTTTGTGATGGGTTTGGTTTAAATTGGTTTAAATATAAGACACA  
TAGTCCATAGAGAATTCACCTATGGACTATGCTGCTAAGAGAATCTCAAAGAGATGCACT  
GTTATGCTCCAGAGTTTGTGAGAGGCCACTAAGGTCAGGAGACACATGCCATATATATC  
AAGATGCTGTCAACAGAGAAAACCAAGTGAGGTTTCAAACAGAAGCCCCGCTCCATTCAAC  
CAGGCAGCCACTCCTCATTCAGGTGCTGACCTGGGCTTGGCTGCTTCTCACATGGGCA  
10 ACTCTATACACTCTATTCCTGGGAGAAGGGCAGCAAAGACCCACTTATTAAATGATGTTT  
AACAATCCTCGGCCGGGCGCGGTGGCTCACGCCTATAATCCCAGCACTTTGGGAGGCCGA  
AGTGGGCGGATCATGAAGTCAGGAGATCGAGACCATCCTGGCTAAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 259>:

**GNMCJ73R gnm\_259**

15 ATTTTCATGGACAGCAACTCATCTTCCTGGTTTTATTTTTATTTTATTTTGACACAGG  
GTCTCACCGTTACCCAGGCTGGAGAATAGGTGTGATCACGGCTCACTGCAATCTTGACCT  
CCCAGGCTCAGGTGATCCTCCACCTCAGCCTGCTGGGTAGCTGGGACTACAGGCATGTG  
CCACCATGCCTAGCTAATATTTTGTAGTTTTTTTTTTTTTTAGAGGTGAGGTCTTACCATG  
CTGCCCAGGCTGGTCTTGAATTCCTGGGCTCAAGTGATCCTTCTGCCTTGGCCTCCCCAA  
20 GTGCTGGGATTAAAGACATGCGCCACCGCACAGCCCATCTTCCCATTTTTATAGGAAGGC  
TGCTGCATAATTTTGAATCTTTATGCTGGGTGCAAACCTCAAAGGCATAGGGGGTAAGA  
TAGGCAACAGAAATTGTGTATCGAGTGCTTACTGTATGCGTGGCACTGTTCTAAGTGCTT  
TACATATAACACATTTAGTTTTTACAACCATCCTATGAGGCGATTTTATTTCCATTTTAT  
AGACAAGAAAACCTGAAATACAGAGAGGTTAAATAG

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 260>:

**GNMCJ73F gnm\_260**

30 CCCTCTACTAAAATACAATTATTAGCCAGGCATGGTGGCTTGTGCCTGTAGTCCCAGCTA  
CTCAGGTGGCTGAGACACAAGAATCACTTGAACCCGGGAGGCAGAGTTTGAGTGAACAA  
CAGATCGCGCTGCTGCCCTCCAGCCTGTACGACAGAGCAAGACTCTGTCTTAAAGAAAA  
AGAAAAAAGAAAGAAAGCTAAAACAGGCCACAAAGGGACCTTTTCCTTTTATTTA  
TTTATTTGAGACAGAGTCTCGCTCTATCACCAGGCTGGAGTGTAGTGACGCAATCTCGGC  
TCATGGCAGCCTCCGCCTCCGGGTTCAAGCAATTCTCCTGCCTCAGCCTCCCGAGTAGC  
35 TGGAACTACAGGTGCATGCCACCTGTAGAGATGGGGTTTACCATGTGGGCCAGGCTGGT  
CTCGATCTCTTGACCTCGTGATCCGCCTCCCAAAGTGCTGGGATTATAGGCATGAGCCAC  
TGCACCCAGCCTATTTTTATTTATTTTGGAGACAAGGTATCAGCTCTGACGCCTAGGCTA  
GAGTGCCTGCGCAATCTTGGCTTACTGCAACCTCCACCTCCCGGGTTCAAGCCATTCT  
CCTGCCTCAGCCTCCTGAGTAGCTGGAACCTACAGGCACATGACACCACGCCTGGCTAAAG  
TTTGCAATTTGAGTAGAGACAGGGTTTACCATGT

40

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 261>:

**gnm\_261**

TGAAATAATGATGTGTTTGTATTTTATAATCTATGTTGTGTCCTAGTTTTTCAGTGGAAT

ATAAATAATGATGGTAACTTAGATTCAATGTGAACCTTGAGTAGGGGTACAAGTTCAAAA  
 TCTGTATAAAAAATCTATATTAAATGAGAGAAGAGGCTGGGCGTGGTGCTnCACGCCT  
 GTAATCCCAGCACTTTGGGAGGCCAAGGCAGGAGGATTGCCGGAGGTCAGGAGTTTGAGA  
 CCAGCCTGACCGACATGGTGAAACCACATCTCTACTAAAAATACAAAGATTAACCGAGCG  
 5 TGGTGGCGGGCACCTGTAATCCCAGCTACTCAGGAGGTTGAGGCAGGAGAATCGCTTCAA  
 CCGGGGAGGCAGAGATTGCAGTGAGCTGAGATTGCACCACTGCACTCCGGCCTGGGTGAC  
 AGAGGCrCTCCGTCTCGAAAAAAGAGAGAGAGACAGAAGAGAATTTTATTAG  
 GAAATCTAGGCAATAAAACACAGAAATTTAACTCTGAGCGTCTGGCTACCAAAGCAGGT  
 10 AGGTCAGGATTTATTTATTTGATGGATGTTGCTTAAAGCCTCCTTGTGTCCTAGAGCAGT  
 CAAATTCATAGAGACAGAAATTAGAATGGTGGTACAGTTTCGATTTTGCAAGGTTCAAAA  
 TATTCTGGATATGGCTGGTAGTGACGGTTGCAGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 262>:

#### GNMCJ77R gnm\_262

15 CCATTACACTCCAGCCTGAGGTGACACAGCGAGACCCTGTCTCAAGACGAAAAAAGTTCT  
 ACTTGCAACTCCACACAAGTAGTGCAATTCTTGGTATGTCAAAATACCAAGAATGAGA  
 ACTGCTGATACAAAATACAGTGGACACAAAGAAAATGTCCCTTTGTATCTGGGAAAGGA  
 GGCAGGGGTGAGGAAAAGCTTTAAAGAGAAAGTGATGCTTCAGCTGTCTTTAAACAGTAA  
 CACAGTTGAGTCTTTTCTGGAAGTTCTGCTTCTTACAGAAGGAAAAGTATGTATTTCAGAA  
 20 AACTGAAAAATGTTCAAGTATGGCTGGCATGTATAGTGACCAAGCCAACAGATAATAAATC  
 TGGGGAACAAAGAAGCACCAATAGACCATGGAGGGCCTTGTAACCAGATCTGTAACATA  
 GAGAGATCTGGAAGTGTGGGAAATAGACTCAATGAAGGAACAACCATGTGCTTAGAGAGA  
 ACCAGGGAAAGCTCCATGAAAGATGGAGCCCAGCCAAGAGTGACATGATAAGTTTGGAG  
 CATCTATGATGATTCTGGGTAAATGCATCTAACAGACAGTTAAGAACCAAGTCTAGGCCG  
 25 GTGCAGTGGCTCACGTCTATAATCCCAGCAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 263>:

#### GNMCJ77F gnm\_263

30 CCGAACAGTCTCTGACTCAAAGTAAGGGCAGTAATTGTCATCTGTTGTTTTTGTCCAGC  
 TGACTGTGCTGTATCATTTCTCACTCACATTTAAGTCCACTGTTCTTATCACTGTAGTAA  
 TTACCCCTGACAGATTACCCATGTTTTTTTTTACATGCTGATTTTCAGTGGACTTTTTTTG  
 AGACAAAGTCTCCTTCTGTACCCAGGCTGGAGTGCAAGTGGTGATATGGGCTCCCTG  
 CAACCTTTGCCTCCTGGGTTCAAGCAATTCTCCTGCCTCAGCCTCCCAAATAGCTGAGAT  
 TACAGGCACCCGCCACCATGCCTGGTTAATTTTTTTATTTTATAGTAGAAACGGGGTTTCA  
 35 CCATGTTGGCCAGGCTGGTCTTGAACCTCCTGACCTCAGGTGACCTGCCTGCCTCGGCCTC  
 CCAAAGTGCTGGGATTACAAGTGTGAGCCACTGAGCCCAGCCTCAGTGGACTTACTTTTT  
 TAAGCCTTGTATTTCCTTGATCAGCCGACACTGTTGGCCACCCACTTCTTAAACTTCAG  
 TGTTTCTGATCCTCCTGTCTCTGATCCTTTAATCTCTCTCTTTTTnTTTTTTTTTTTTT  
 TTTTGCTCTGTGCGCCAGGCTGGAGTGCAATGACGCAATCTGGCTCACTGCAAGCTCCA  
 40 CCTCCCGAGTTCAAGTGATTCTCCTACCTCAGCCTCCCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 264>:

#### GNMCJ86F gnm\_264

45 CCTTGCCTTTTAGGAAGAAATAATAGATGGAAGCTATCTGAATGGTAATGTGCCCCCTTG  
 ATCTCCACTTGCTTCTTCTAAGAATTTCAAACAGAATGTAGCTGTGATCTCTCTGGAATG  
 ATTCTTTTTAAAGATGTCTTTTCATTTTACTCCCATGTAGCACTGCTGGATCTCATACA

5 GTTTCAAAGGTA AAAATGCCCTAGAGGAGAGGGGAAGGGATGGTATAGATTTTTAATAAAA  
ATTCTTAATGGAAGTCTCTTAATTGTA AAAAGTAATATGTGCTCATTACAAAAATGTCA  
ATCAATGCACAATGTGTTAAAGTCAACAAACACCCTTGCTCCACGGGCATCATTCCCTCC  
TCACTCTAGCATAAGGGCCAATTTTTTTTCTTTTTTTGAATGGAGTTTCGCTCTTGTTC  
10 CCAGGATCGAGTGCAGTGGTGCTATCTTGGCTCACTACTGCAACCTCTGCCTCCGGGGTT  
CAAGCAATTTTCTGCCTCAGCCTCCTGAGTAGCTGGGGTAACAGGTACCTGTCACCATG  
CCCGGCTAATTTTTGTATTTTTTAGTAGAGATGGGTTTTACCATGTTGGCCAGGCTGGTC  
TCAAACCTCTGACCTCAGGTGATCTGCCGGCCTCAGCCTCCCAAAGTGCTGGGATTACAG  
GTGTGAGCCACCGCAACCGGCCTAAGAGCTGAA

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 265>:

**GNMCJ88R gnm\_265**

15 GTACCCGTGTCTAAATTTGCCGTCCGTTGAGGTAGAAGGC AAAATTTGGAGTTTTCTTGTTT  
AGAAAAAAACTACAGATGACTACTGTGCACCTGAAAACAGCACTCAGCTTCACTAACGA  
GACATGCAAGCTAGAATCAAATTGCTGTTTTGTTTTGTGCGTGTGATTGTTAGCTG  
AAACCAAATCACAAGGTCTTTTTCTCCCTCTGTATTAGCTCAGCATACACTGAGCTTACA  
AACGTATGAACCTTCAGTTGTGCTGGAATCTTACAGCCTGCTACTTCCTAAGTATCCTTT  
AGAGAAGCTGCCTTGGTGACCAATGAATGIGGTTAGCCTAGTGATACTCTTCTGGGCCAT  
20 ATACTGTGTGACTATCTGCATGGACCTTTATTGAAAGCATTCTGCAAATAATTTTTTTA  
AGTGTTTTTTAAATGTGTGATAATTTGTGCTTTTAAAGATATCTTACACTTTTCACTTAT  
TTGTACCTTTAAAAATCTTTTTTTTTTTTAAACCAAAGGTTTGCAGTATCCTCAGAGTCT  
GAAATTTGAGCGGATAGTGATGAGCCAGCCAAATCCCCTGAAGATTT

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 266>:

**25 GNMCJ88F gnm\_266**

CCAGTTCGAGACCAGTCTGGCTAACGTGGTGAAACCCATCCCTACTAAAAATACAAAATT  
AGCCAGGTGTGGTGGCGCATGCTGCTAATCTCAGCTCCTTGGGAGGCTGAGGCAGGAGAA  
TCACTTGAACCCGGGAGGTGGAGGTTGCAGTGAGCCAAGATCGCACCCTACACCCACAGC  
CTAGGAAAAAAGAGTGAAATTTTCATCTCAAAAAATAAAATAAAATAAATATGACAGTAAT  
30 CTCTGTTTTATTAAACACATAATGTGCCAGGTACTATTGTGGTCACCTGCAAAGACATGG  
ACCCACCCACCCAAAATTTGTTTTAGATGTCAAGACTGATGATACACCACATGCACCAAG  
AGGGTAGGAAAAGGTTTATTGCTCATATAATGAAGCTTTCTGAGAGAGCAGGGCAGATTCT  
CCAAGCAGGTCCAAAATGGTTTCAGAAAACCAGGCAAGGAACTCCCTTAGCATTTATG  
GTGGTTAGGGATGGGGATGGGGATGGGGATGCGATGGGGATGGGGATGAAATGTGGGTCT  
35 GGTGGGAGGGCTAGGGCTTGTTGGGTATGAATTTCCAGCTGGTGCCAGAGGAGAGAGCAG  
CAGGCTTTCTTAGCTTGCCAGATGTGGGGCAGAGGGGAGAAGGAGGGTGGAAGATGTT  
AGCAGTCCCATATCAGAAGTGAGGCAGACTGTTT

30

35

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 267>:

**40 GNMCJ90F gnm\_267**

CCGAATGAAGTAATCTCTTCATTGTATTTTTTTTTTTTTTTTACTTATGCTGAGATTTAAA  
TGACAAAGATTCATATAATCCAAGAGAGAAGTATTATTTAGAGGGATTCTTTTACCATGT  
GATATATAATAAATGCATCCAATGTTATACATCAATTTAAAAACAAGTAAATAACTTTA  
AAGAAAAGATAACTACTGGCCAGGTGCAGTGGCTCACACCTGTATCCCAGCACTTTGGG  
45 AGGCCAAGGCAGGTGGATCATGAGGTGAGGAGTTGGAGACCAGCCTGGCCAAGATGGTGA  
AACCTGTTTCTACTAAAAATACAAAATTAGCCGAGCGTGGTGGCAGGCGCCTGTAATCC

45

-686-

5 CAGTTACTCAGTAGCTGAGGCAGGAGAATCGCTTGAACCCGGGAGGCGGAGGTTGCAGTG  
 AGTTGAGATCATGCCACTGCAATCTAGCCTGGGTGACAGAGCAAACTTTGTCTCAAAAC  
 AAAAAGAAAAGAAAAGATAAGATAATTACTTTATACTTAGCTTGTCTTACCCATGAGTGA  
 CGGGCTGCATGTGGCCCAGGACAGTTTGAATGCAGTTCAACACAAATTTGTAACTTTC  
 TTAACACATTAGGAGATTTTGGCCAGGTACAGTGGCTCATGCGTGTAATCCCAGCACTTT  
 GGGAGGCTGAGGCGGGCAGATTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 268>:

**GNMCJ91F gnm\_268**

10 CCnTGTCGCCCAGACTGGAGTGGAGTAGCATGACCATAACTCACTGCATTGCGGAACTCC  
 CATGCTCATGTGATCCTCCTGTCTCAGCCTCCTGAGTAGCTGGGACCACAGACATGCATC  
 ACCATGCCTGGCTAATTTTTTAACTTTTGTAGAGACAGGATCTTGTCTTGTATGTTGCC  
 CAGGCTGGTCTCGAACTCCTGGCGTCAAGCGATCCTCCTGCCTCAGCCTGTCCAAATCT  
 TAACACTATACTATTCTGCCCTCTATACTAATCCACAGAAATAAATTTCTTTTATCAA  
 15 TTAACCTTAAACAGACCATTTCATTCTCACAAGACAGATAGTCAGAAATACAGGATCGAT  
 CTGTGTTTCATGGTAATACCTGGCTCCTTCCAAGTTCCTTATCCTTCAGGACTGTAGAGT  
 TGAATCCAGGTTGCCTCCTTAAATCAAAGAGAGACACTTCCTTAAAGAAAGCCCTTGTA  
 TCTCCACGATGCCTGGGGCAGTGCTTCCGCTTGGACCATCTGCCAGAAGCGAGAAGCAA  
 CAAAACAACATTGTAAAAATGCATTGAGCTTTGAGGAAGGGCCAGGCACTACATCACAG  
 20 GCAATAAAATCCATCAGAACCGCTCAGCAACCCTAGGAAGTGGAGAGTAGCATCATCCCC  
 ATTTACAGGTGAGGGAACAGAGACTTAAAGTGTGATGAGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 269>:

**gnm\_269**

25 GTACCCCATGGGTACAGAGGAAAAGCAAAGAAAGGAAGGATAAGGATGGGTGCGTAGGAA  
 GACAACCTTCCAATTACAAGGCAGAGTAGCTCTGACCTTCTAGGAACAGGTGAGCCCCTa  
 aGAACGTCCCAAGGGATGGAAAGCAGGTTCTCCTAACCATCTCAAAGGCACCCCTCTTAG  
 GGTGATTGGCCAAATAGGACATGTTCCACCAACACGTCTCAAGAGAAAGACAGTCTGGTGG  
 ACTTCAGTATTCCCTGATGCATCCAGTCAAGTCCATGGGTGAATAATTTGTCTTGGG  
 30 GAAGGGTTTCAACAGCATCCTTGTCCAAAGATATCTTCATGGGCCACTGAAAGAACTGG  
 CCTCTAGATAGGTCATTACCTTTAAAGGGTTTCTTTCAGCTTTAACAGATACAATA  
 GATTGTGAATGCAATGAAAAAATGACAAACCTACAAAAAGAATCAAAACAGTATACAA  
 CACTGTCTCTATCCACAAAACAAATGGATCTTTAAGTGCAACCACACAAAAGAGATGAC  
 AAAAGCCTTACATACAGGGTTTATATATAAmAmAGGAGACACTTTATTCTAAAATCACC  
 35 ACTTAGAAATATAAACATCTTGCACAGAGTAGGAATTTTATTCACTTTAAAACATGCCA  
 AAAACATATGGGAGATATTTCTGACTTGAGACAATGCTATACTCTTTTAAAGCATGATA  
 TTAAAGTACTCGGCAAATTAGGCTACTTACATAAGAGAAATAAATTTAGCTCTTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 270>:

**GNMCJ95F gnm\_270**

40 CCTGCACTCCAGCCTGGGCAACAAGGGAGAACTGTCTCAAATAAAATAAAATAAAAT  
 AAAATAATGTAGATCTTGAAAGGGGGTTGGTTTATGCTGGTGTATGTACTTTCCAAAGTT  
 AGTAACTTACACTTAAGGTTATATATTTTGGCCAGGCGCGGTGGCTCACGCCTGTAATC  
 CCAGCACTGGGAGGCTGAGGCAGGCAGATCACGAGGTCAAGAGATGGAGACTATCCTGGC  
 45 GAACATGGTGAACCCCCATCTCTACTAAAAACACAAAAATTAGCCAGGCGTGGTGGICTA  
 CTAAAAATACAAAAATTAGCCAGGCGTTGTAATCTGAGCTACTCAGGAGGCTGAGGCAGG

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ACAATTGCTTGAACCCAGAAAGCGGAGGTTGCAGTGAGCCGAGATCTTGCCACTGCACTC  
CAGCCTGGGCGACAGAGTGAGACTCTGTCTAAAAAAAAAAAAAAAAAAGTCATC  
AAACCAGATGACACAAATCCAATGGCATTTCACCTTTGGTTTGG

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 271>:

**GNMCJ96R gnm\_271**

CTGCATGACTCCGCCAAAATCTATCGCTTCCCGGTTTCGCAGAGCATTGATGAGCTGATG  
GAAGCTTGTGCTGACGTGATCCGCAAAAACAATCTCACCAGCGCCTATATCCGTCCGCTG  
10 ATCTTCGTGCGGTGATGTTGGCATGGGAGTAAACCCGCCAGCGGGATACTCAACCGACGTG  
ATTATCGCTGCTTTCCCGTGGGGAGCGTATCTGGGCGCAGAAGCGCTGGAGCAGGGGATC  
GATGCGATGGTTTCCCTCCTGGAACCGCGCAGACCTAAACACCATCCCGACGGCGGCAAAA  
GCCGGTGGTAACTACCTCTCTTCCCTGCTGGTGGGTAGCGAACGCGCCGCCACGGTTATC  
AGGAAGGTATCGCGCTGGATGTGAACGGTTATATCTCTGAAGGCGCAGGCGAAAACCTGT  
TTGAAGTGAAAGATGGTGTGCTGTTACCCCAACCGTTCACCTCCTCCGCGCTGCCGGGTA  
15 TTACCCGTGATGCCATCATCAAATGGCGAAAGAGCTGGGAATTGAAGTACGTGAGCAGG  
TGCTGTGCGCGCAATCCCTGTACCTGGCGGATGAAGTGTATTATGTCCGGTAAGGCGGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 272>:

**GNMCJ96F gnm\_272**

GTTGCCAGGCTGGCATAAGCACGCAGGCAAAGGAGACCTGACGTTACGATTTTTTCGGCG  
TCCAGGCTTTGTACCTCGAGCGTCTGCGCTTCACGACGCGCCGCCAGTTCGGCATCGC  
TTACCTGTAACGTAATGCCACGGTTCGGGATGTCGATAGCGATCAGGTCACCATCTTCAA  
TCAGGCCAATGCTGCCGCCGCTTGCCGCTTCCGGTGAGACGTGGCCGATGGAAAGACCAG  
AGGTGCCACCAGAGAAACGACCGTCGGTGATCAGCGCACAGGCTTTGCCGAGACCCATTG  
25 ATTTTCAGGAAGCTGGTTGGGTAGAGCATTTCTGCATCCCCGGACCGCTTTTCGGGCCTT  
CATAGCGAATTACTACCACATCTCCGGCGACAACCTTTACCGCCGAGAATCGCTTCTACCG  
CATCGTCTCGGCTTTTCGTACACTTTCCGCCGGCCGGTGAATTTGAGGATGCTGTTCATCGA  
CGCCTGCCGTTTTTCAGGATGCAGCCGTTTTCCGCAAAGTTACCGTAGAGCACCGCCAAGC  
CGCCGTCTTTGCTGTAGGCGTGTTCAGCGAGCGGATACAGCCATTGGCGCGATCGTCGT  
30 CCAGCGTATCCCAACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 273>:

**gnm\_273**

GGGGGATGAAAACCAAGCTCCCGTCCGTCGGAATAGGGGCGGTGCTGTCCGTTTTGTCACA  
35 AAAAACCCTTTTGACGGGAGAAACGCACCAAAGGCTGGCCGGCTTCTTCCGGAACACAG  
TTTCAGCGTCACGCAAATCCACCCGTGTTGGCGCAAAACACCGCCCATCTGTCTGTTTACG  
CACCGCTTCGCGCACAACAGCGGCATCGGCTGCCTTGCCCGTGCCGCCGTATCGGGCGAT  
GAAGGGGCGTGGGCATTGTTTGACCGGTTTCCGGACGAACCTGGAACATTTCGGAATGCAGT  
CCGAACGCTCGAGTCGAAAGGTTGTACCGGGCACACAAAGCCTATTGGCAGGCGGTAAAA  
40 GACGGCAATATCGAAGCCGCATACGCGGGCATTTCGATATCGTGGTTCTGGCAGCTTGG  
CGGCAGGATGCGGAAGACTTCAACGAAGCCTATTGCCGCCATGTACGCCGCAAAATGAAC  
ATACCGGAACATTTGGCATATTTGCCGGAGAGCCGATTATGATCAGGCAGAACGACTAC  
GCGCTTGAACGTGTTCAACGGCGACATCGGACTGATTATGGAAGATGTCGGACGGCAGGGC  
AGCCTTGCCGCTATTTTGCCGATGCGGACGGATTTAAAAAGGTAGCGGTAAGCTGCCTG  
45 CCCGAATTTGAACCCGCATTTCGCATGACCGTCCACAAAAGCCAAGGTTTCGGAATACCGG  
GAAGTATGGCTGCTGCCGCCTTCCGCCGCACCTTCGGACGAAGGGGACGATGCATTGTCC



GGATTGAGTAAGGAGCTGTTATATACCGCCATTACCCGCGCGAGAGAGAAGTTTCGTATTC  
TTGGCGGGGAAGAAGCCTTCCGGCAAGCTGCCGCCACCGTCAAAACGCGTCAGACGGCA  
TTGGGCAGTATGCTCGAGCGGGTATTTTCAACAAGATATAGGAAAGTGGTTTCCCGGGTTCGCGCAAAAGC  
CGCCCTTATGCCTTTTTTCAAACGGTATAGGAAAGTGGTTTCCCGGGTTCGCGCAAAAGC  
5 AAGCGGATCGCTCGGATTCGCGGCTTTTTTGTGCTTCGGCTTGGTTTTTCATCATATCGGC  
AACACGCAAAACCCGCTGAGCAATGCCTTATCCAGAAAATCGGATGGACGCAGGTGCAG  
ATGTTTCGGCAAGATCGGAAATGATCAGGCGGATTTCTCCGTCCGGATTGAGATGTTTCGG  
CGCATCCCGCAAAAACGCAGCCAGCATCGCAGATTCGGGGTTCGTATAACGCGGATTCGAC  
GGCGGAAGTCGCTTGGCGGGAAGCCAGGGCGGATTGCAGACAATCAGATCGGCAAAACCC  
10 TTCGGGAACAGATCGGTTTTCCCGTATCTCAACCTGTTTTTCAAAGCCCAAACGGGCAAT  
ATTGGCACGGGCGCAGGCGACGGCTTTTCGGATTGGTATCCGTGCCGATGACGGAAGGAAT  
GCCCTGTTTCGCCAAAATGGCGGCAAGCAGCGCGAGCCTGTCCCGATATCGAATGCCGT  
CTGAAAACCCGTTGACGCGCATGGGCGAGCAGGTCGAGGTATTTCGCCGCGCAACGGCGA  
GAATACGCCGAAAGGAACGTGTATGCTGCCGCCAGCTGCCGAACGGCAACCCCTTTCTT  
15 ATGCCACTCGTGCGACCCATAAACCCAGCAGCAGATTGAGCGGCAGGAAAACGGTTT  
GCCGTCCGCTCTCCGTACACGTGAGCAAGCGGAGCGTATATCGGGCGCGCTTTGTT  
GTCCAACACAAAACCGGGGCGGATTCAACGGCAAGCATATTGAGAATACGGCTCTGCTG  
CGCTGCTTCATACGGTGGGCATGGAAGAGGGCGGCATATCCGCATCGGAACGGACGGC  
GGCAGGTTTGCAACCCCTCTTCTTCATTGCAGAAAGCACCTGTTTGGCATTGTGGAAATC  
20 GCCCTGCTAGACAGTTGCAATATTTGATAGGCAGCCTTCAAATGCCGTCTGCACCGCT  
TTTCGGGACATAATGCCAACCTTTGGGCGGCTTTTGCAGACTTTCGTTGCGCCATTTCGAA  
CCCGTCATCGGGAATAAAGAAAGACATGGGATACCTGCGTCATGTTTTGAAAATAGG  
GCGGCAGAACCGCAAACCATACGGATGGTACAGCAAGGAGCGGCAACACAGAACAGTTTT  
TTGTTCCCGCTTGTCTTTTCAAGCCCATGCCGTCTGAAGCCGGAATGTTTCAGACGGCA  
25 TCGCATCAAACCTCCATAAATAAACACATATGCTTGAAATAATACCTTCAACCCCAATGT  
ACGCGAAAATCGGCAATCTGTGACACACAAGAGAGTACCTATGACACAAAAGAAAAGCA  
TTTTGAGGAATATGCCGCCTTGCGAACCCCTTCCTTTGCGGGATGTGCTCGTTTACCCGCA  
TATGGTTCTGCCGCTGTTTGTGCGCAGACCGAAATCCATCGCCGCACTGGAACGCCAT  
TACCCGCGAGGAGCCGGTTTTCTGTTGGCGCAAACCGATGCGGCGGTAGAAGAACCAGAT  
30 TGCCGCCGACCTGTATCAGACCGGTACGGTCGCACAAGTCTGCAAGTGTGAAACTACC  
CGACGGCACGGTAAAAGTATTGGTGAAGGGCTGTATCGCGGACGTGTTCTGACCATTGA  
AGACACGGGCGGTCTGTTCTGTTTCCCATATAGAGACGGTTCGTGGAAGAAGACACGGGCGG  
CAATACCGACCTCGAAGCCGTGCGCCGACCCCTGTTGGCGCAGTTTGAACAATACGCCAA  
ACTCAATAAAAAAATCCCGCGGAAATTATCGGCAGCATCAACGGCATTGCCGAAAACAG  
35 CCGGCTAACCGATACGGTCGACGCGCATTTGCAGTTGAAACTGGCGCAACGCCAACAGAT  
TTTGGAATTTCCCGAATCGGCAAACGGATGGAATTCCTGCTGGCACAGCTGGAATCCGA  
ACTCGACATTATGCAGGCCGAAAAACGCATACGCGGACGCGTCAAACGCCAAATGGAAAA  
ATCCAGCGCGAATATTATCTGAACGAACAGATTAAAGCGATACACAAGAAGTGGGCGA  
AGAAGACGAAAACGGCGAACTGGATGCCTTGAAGCAGATATCAAAAAGGCGGGTATGAC  
40 CAAAAGAAGCGGAAGAAAAATGCCTGTCCGAACCTGAAAAAGCTCAAAATGATGCCACCGAT  
GTCTGCGGAATCCACCGTCTGACGCAACTACATCGACACTTTGCTCGAGCTGCCGTGGAA  
GAAAAAATCCCGCGTCAGCAAAGACATCGCCAAAGCCGGAAGTGGTGGTGGATGCCGACCA  
CTACGGCCTGGAAAAAGTCAAAGAACGGATTTTGAATACCTCGCCGTCCAAAACGTAT  
GGACAAACTCAAAGGCCGATTCTGTGCCTGGTCCGCCCTCCGGGCGTGGGCAAAACCTC  
45 TTTGGGCGAATCCATCGCCAAAGCAACGGGCGGAAATATGTCCGCATGGCTTTGGGCGG  
CGTGCGCGACGAAAGCGAAATCAGGGGACACCGCGCACCTATATCGGCTCTATGCCCGG  
TAAGATTTTGCAGAATATGGCAAAAGCCGGCGTGA AAAACCCCTTGTTCCTGCTCGACGA  
AATCGACAAATTGGGTAACGACTTCCGAGGCGATCCCGCCAGCGCGTTGCTCGAAGTGCT  
CGATCCCGAACAAAACAACAGTTTGGCGATCATTATGCGGAAGTGGATTACGATTTGAG  
50 TGATGTGATGTTTATCGCCACATCCAATAGTCTGAATATTCCGACTCCGTTGCTCGACCG  
TATGGAAATCATCCGTCTGTCCGGCTATACCGAAGACGAAAAAATCAATATCGCGATGCA  
GTACCTCGTACCGAAGCAAATGAAGCGCAACGGTGTAAAAGAAGGGGAATTGGCAATCGA  
AGAAAGCGCGGTGCGCGATATATCCGTTATTACACCCGAGAGGCGGGCGTGGCTTCGCT  
CGACCGCGAATTTGCCAAAATCTGCCGCAAGGTGGTGGTATGCAGATTACCTTGGACGAAGA  
55 TAAGAAGAGGTTGTCTGAAACCAAGAAAACAGCAAAGCCAAACCTAAAGCGGTTAAAGT  
AAATGAGAAAAATCTGCACGACTATTTGGGTGTGCGCGCTTCGATTACGGCGTTGCCGA  
AAGCGAAAACCGTATCGGGCAGGTTACCGGTTTGGCGTGGACGGAAGTTCGCGGCGAATT

GCTGACCGTCGAAGCCGCGAGCATTGCCGGGTAAGGGCGTGATTCACTGCACCGGCCAGTT  
 GGGCGATGTGATGAAGGAATCCGTGTCCGCGAGCGTGGTCGGTTGTCCGCTCCCGTGCGGA  
 ATCAGTGGGTTTGGCTCCTGATTTTACGAGAAAAAGACATCCACATCCACGTTCCCGA  
 AGGCGCGACGCCGAAAGACGGCCCTAGTGCGGGTATTGCGATGACCTTGGCGGGCGGTATC  
 5 TGCCTTTACCAAAATCCCGGTACGCGCCGATGTGGCGATGACGGGCGAAATTACCCTGCG  
 CGGCGAAGTTTGGCCATCGGCGGTTTGAAGGAAAACTGTTGGCCGCCTTGGCGGGCGG  
 CATCAAACACGTCTGATTCCGAAAGACAACGTCAAAGACTTGAAGAAATCCCTGAAAA  
 CGTGAAAACCGGCCTGACCATCCATCCGGTCAAATGGATAGACGAGGTATTGGCTCTGGG  
 TTTGGAAAGCCAGCCTGAGCCTTGGGCAGAACCTTCTGGTGCGGAAGCGGCGGCGGAATC  
 10 CGCTTCAAAACCAAAACCCCGCAGCAGGGCAACCAACATTGAAACGCAGGAAATGTGTT  
 GTAAAAATGCGGTTTCGTCTGAAAGCCTGTCAAATAGGGTGATTCCGTATTTTTGCTT  
 GACACGGCAATTTGAGAATTGCTATAAAGCGAAAGTTGCTCAAGCAGTACAAACCCGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 274>:

15 **gnm\_274**

AAAATCCCGTCATTCCCGCGCAGCGGGAATCTAGACATTCAATGCTAAGGCAATTTATCG  
 GGAATGACTGAAACTCAAAAACTGGATTCCCACTTTCGTGGGAATGACGGAATGTAGGT  
 TCGTGGGAATGACGGGATGCAGGTTTCCGTATGGATGGATTTCGTATTCCCGCGCAGGCG  
 GGAATCTAGACATTCAATGCTAAGACAATTTATCGGGAATGACTGAAACTCAAAAACTG  
 20 GATTCCCACTTTTCGTGGGAATGACGAGTGAAGTTACCCGAACTTAAACAAGCGAAAC  
 CGAACGAACTAGATTCCCACTTTCGTGGGAATGACGyGGwGCAGGyTTCyGTATGGATGG  
 ATTCGTCAATTCGCGCGCAGCGAAATCTAGACATTCAATGCTAAGGCAATTTATCGGAAAT  
 GACTGAAACTCAAAAACTGGATTCCCACTTTCGTGGGAATGACGCGATTAGAGTTTCAA  
 AATTTATTCTAAATAGCTGAAACTCAACGCACTGGATTCCCGCCTGCTCGGAATGACGAG  
 25 TAGAAGTTACCCGAACTTAAACAAGCGAAACCGAAGCAACTGGATTCCCGCTTTCATG  
 GGAATGACGGGATGCAGGTTTCGTAGGAATTACGTGGTGCAGGTTTCCGTACGATGGATT  
 CGTCATTCCCGCTCAGGCGGGAATCTAGACATTCAATGCTAAGGCAATTTATCGGAAATG  
 ACTGAAACTCAAAAACTGGATTCCCACTTTCGTAGGAATGACGGC

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 275>:

**GNMCK14F gnm\_275**

CCAAAGAAGTGACGGAGTTGATGTGCACAGGACTATGTAAAACGGGCTTGCCGTTTAACC  
 CATACAAAGAAGAAAGCCAAGGGCAGGAAGTTCAGCAAAGCGCGCACAACTTCGGACAG  
 GCGCAAGTTGCCACATTGGGCGGAAAACCGTAGCAGAACCTAATGTACGATAATTGGGA  
 35 AGAACGCGGGAACCGTTTGAAGGAATCGGACGGGGCGTGGTCCGATCGGCAAACTGAA  
 GAAAACGGCAAGAGAGAAAAAGACCCGTAAACCGTTTGAATATAGACGTTTACGGGTC  
 TTTGTTTCGCGCAAAGCAAGGGCTAAGGCAGTCAGGCAGCAAATCCCGCAATGTATTAA  
 ACAGACGCGTAGAAATGCCGGCTGCCTGGAGCGTTTTTCTTTATTGAATATCATCCTAGC  
 CGTATCAAGGCTGTATGAATATGTTTTTTACCAATGAATATAATCGGGCTGGACATCTCA  
 40 AAGGACACCATAGACGCAACATTGCATAAAACAAACGGAAGTATCCATTACATTAAATTT  
 AAGAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 276>:

**gnm\_276**

45 TTTACCTGCTCTTTTAATTGCAGCTTCATCAATTCGATGACACCTTGACGGTGTGCCTGC  
 TCTGCGGCTTCTGTGGTATCAAACAGGCGCAGGGCGATGCGGCCGTCTTTTTCTTTTTGT

AGGCCGAGATAGCCGGTGAGCTGTTGTTTGCCGCGTGCGAATTTGATGGATTGCGGCAGG  
GTGCCGATGTCCCATGCGGTGACGTTGTGCGCTCAAATTCCTGGGTGTTGTACGGAAG  
GTAAACGGCGGCAGCTTGACCGAGTTGTTGTTGCAATTCGTGCAGTTTGCGGCCGCCGCA  
AGCTCTTGTCGCCCGTCGTCGATAATGCGGAGGTTGAAATAGCAGTGTTGCGGCAGCCTG  
5 AACGCGGCCCATTCGTCTTGGTTGATTTGCTCGAATATGCGGATGTCGCCTGCGGTTTTG  
GCGATGGCTTGCGGCAGTTGGGCGAGGATGGGGCGGTTGCGGTGCGGCATTGCTTTGCT  
TCCACCGTATTCAAATACCGATGAAGGGCGGATGATTGTCAACCACAATCAAGACAAAG  
AATCCACCGTTACCATTACAGGCAATAAAGATATTGCTACAACCGGCAATAACAACAGCT  
TGGATAGCAAAAAAGAAATTGCCTACAACGGTTGGTTTGGCG

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 277>:

**gnm\_277**

CATTAATAAATAAGTTTTTCCTTAATTTTTCTTAGTGCTTGTTTTATCTGCTTATTTGTT  
GCAATGCCGTCTGAAGCAATGTGCGTTTCAGACGGCATTGGAATTCAGTTGGGCAGGG  
15 TATCGGACGGTACGGTTCCGGCTCTTCTCATCCGTAGGCGGCATTTCTATCAAATCGG  
GCAAAACCAGTTCGCCAGTTCGGTCAGCGGCGGCAGTTCTTCCAAGCTGTTCAAACCCA  
AATCGCTGAGGAACGTTGCCGTTGTGCGCCACAATGCGGGTTTTCCAATGTGTCCCGAT  
GTCCGATGACTTCAATCCACCCCGATCCTGCAAGTCTGCATCACGTTCTGCGACACCGC  
CAGCGCGCGTATGCCCTCGATGTGCGCGCGGTTACGGGCTGCTGGTAGGCGATAATCGC  
20 CAGTGTTTCCATCACGCGCGGGAGTAGCGCGGCGCACGCTGTTCTTGACGGCTGCCCAG  
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CGACAACGGCGGCACACACAGTTGCGCGCATAGATTTTCGGTCAGCGGTTGCGTTTGGGT  
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25 GCTGAAACGGCATGGGTTTGGATATGCCGTCTGAAATCGGTTGGAGTAGAGAGAAGCTGC  
CTGAAAAATATTTTTCAGACGGCATTCTTTATGCTTCCGAAGCTTCTGCCCTTTACGCTC  
TGCTTTTCTGGCTTCGCGTATGGCTTTGAGTTCGGCTTCTTTCTGACGGGCTTTTTTGAG  
CCAAGTTTCCCATTTGGTTTCGGCGTTTCGAGGGTGATTCTGCCGATTTGCCTTCACGGAA  
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30 GCCGCGTTTTTTGGCTATCCATTGAGCCAAACGTTTTTCGTCCCAAGTGCGTGGGCTC  
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AAGGTTGTAGCCGCTTCTTCGACGATGATTTTCGGCCATAGCATTCGGGGGTGTCGTA  
GAGCCAGAAGTCATCGGCGAGGAAGAGGCGTTGTTTCGGCTTTGGTGATGCCGGGTTGCTT  
35 GCCGGTTTTTGGCGGATTTTTTGCCATCATGCCGTTGATGAGGGTGGACTTGCCAACGTT  
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40 CAGGGGGTTTTTCGCTGGAGGCGGGCATAACGCGCTCCAGCATTTCAATCACCATATCAAC  
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50 ACCTTCAGCCACTGCCGACTGCATGGCGGAGCTGTTGGGCATTTCATCTTGAAGTGTGCG  
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AGAGAGGCAATCTGTTCCCGCGCCTGTCCGATGTCAATGCCGGAACGCACATCGACGCTG  
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TCCAAAGGCAAATTGTCCACGCAGAAATAACCCGAATCTTCCATTTGGCGCAGTGCGACG  
GACTTGCCCGAACCGGACAGGCCGCTAATCAGGACGATCTTCATTGTGTTGTTCTGTTTTT  
5 TTTAAGTTGCGTCTGATGGCGTTCCAAAAATTCGCGCGTACTGTCCTTACCGCGCAACTG  
CAAAATGTAATTGCGTACCGCCGCTCAACCAAAACGGCGAGGTTGCGTCCGACGGCGAC  
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CAGGATTTTTTTGGGGCGGATGGAAGTTTCGCCGAAAATATGGCGGATATTGAGTATCCC  
10 CAAGCCGCGCACTTCCAAAAAATCGCGCAGCATAGGCGAACAACGCCCTTCCAGCGTTTC  
CGGGCCGATGCGGAACAGCTCGACCGCATCGTCGGCAATCAGGCTGTGGCCGCGCGAAAT  
CAGTTCCAATGCCAATTCGCTCTTACCCAGGCCGGAATGCCCGGTAATCAGCACGCCGAT  
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15 ATCGTTTTTATGACAATAGTCGCGCAGTCCCGGGGAAACCGGCAAGCCGTTTGCCACAAT  
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20 CAGGCGGCGGACGGAGATACTGGGCATATTATTCTTCAGTCAGGATGGCACGGACTTCTT  
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25 CCAAACCGGTGCAACCGAGTTTTTACGGGGCAAAAAGACATTGCAAAAACATCAGCATGGG  
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30 TCGGCACAGATAGAAATGCCGTCCAAAGCAGTTTACGGCTCTTCAGACGGCATTGCCCTG  
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35 GCGATGTCGTAACGCCCGAACGTGACGGCGGAGGTTTTGATGCCGATTTTCAAATCGTCT  
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40 GGAATCAGGCACAATGCGGCAAGCAGGCACAAAAATGCCGTGAGCAGCAGCGCTTCTTTT  
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TCGCGGTGCGCAAAAGTCGTTGATGACGCAGCCGGCACTGCCCATTA AAAACGTGCCGATT  
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45 TACACATCCAAACGGTCGGACAGGCGTAAAAATAAAGGGGATTTAGGATTCATATTGCCG  
CGCAGCTTGAAAAACGGTATTTTATCCGATAAAACGTTTCAGTTTCGGGCAGAAAATACT  
CGGTGAGCAGCATTTCTCGCCGTGACGGGAAAACCGAGAACGCCGCGCGGCAAGTACC  
GTCCGCATCCTTTCGCCGGCAACGGCAAACCTCAAACGCCGAACGCGCCCTTCCAAATCGG  
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50 CCGAACCGGATACGGCATTTCGCTCCTTGCCCTCAACAACAGGGATACGGTCCAGCTTCAACA  
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TCCCAAAATAGGTGTTCCATATTTTTCCCAATCTTTATACCGCTCTGTTTTTGCCAACTC  
55 CATCCATTCCGCTTCGGAAAAATCGGCTTTTACAGCGGCATTTCAAGTAGCTCAGGCTGTC  
TTGGGCGATGTGTGCGTCGCGGCTGTCTGGATGTGGTTGAACACGAGGCTGTGCAAGCG  
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TCCGCTGGTAACGAGGATGACGGGATAGCCTTGCTGACGGATATAATCAATGGTTAACAG  
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5 TTTGTGCGGCTTCCTGCATCGGTATGCCATAATTTTGGGTGGACGGCGATGTCGTGCGC  
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CAATTGTTTTGCCAACACGCCGGTGGCGACGGTTTTGCGGATGTCCGTGTCTATGCCGCT  
GACGAAGTAAACGCCTTTTCAATTTGCTGTGTTCTTCAAGATTTGCACGGTTTTGTGCGCA  
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10 AACGGGCGCACCCAAATGCCCTGCGCCACGCAGTCCGCTTGAAAACGCGCCATATCCACG  
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ATGTCCCACGCGGCTTTTTCAGACGGCCTTTTAAGATGCTTCAATGCGGCGGATATTTGCC  
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15 GTAACTTTTTGCGAAGTGATTGCTGCCGCCAGCGTCATATAGCCGCCGCTCAAACCTTG  
CCAATACACATAATATCCGGCACGACCTCCGCGTGTTCGCAGGCAAACATCTTGCCCGTG  
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20 GGCTGCAAATCCGCCCGTCCCATTCATCGTCGAAACGGCTTTTTCGGATTATCGACAAAA  
TAACGCTGCGGCAACGCGCTGCCGAAAATATGGTGCATCCCCGTTTCCGGATCGCAGACG  
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GCCGTCAAACCCCGCGCCTGCTGGTATTGCACTGCCATCTTCAGCGCAACTTCCACCGAA  
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25 AACTTGCCAGCTCCACCGCTGGCTCGTGCGTCAAACCAACGAACATCACGTGCGCCATT  
TGTTTCATCTGCGTCTCAACCGCTGATTCAAACAGGATGATTGTAGCCGTGTATCGCA  
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CCTTCTGCACGTTTGACAGGATAAACGGGCGAGCGGATCGGTATGGAAGTATAGGGATGA  
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30 AGTTTCTCTCTTTTCTTCTTACTGTATTCAAACGCAAAACGCGTATTCTACTCCGACAGA  
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AATACCGTTTTCACGCAGCTCCGCCCAACGCTTCAATCAGTCATAGATATAGTGGATTAA  
CAAAAATCAGGACAAGGCAACGAAGCCGACAGTACAAATAGTACGGCAAGGCGAGGT  
35 AACGCCGTACTGGTTTAAATTTAATCCACTATAAAACGGCAATCCATACGATACAGATCA  
TAGCAACAGCCATCGCAACAGCGTTAGCAAAATCAGGGGACTCCGACATAGGCGCATAGC  
ACCTACCGATGCACGGCTCCTCATTCGGCTTATGAATACCATACCCATCACAAAATCCA  
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TATAACAAACATTATACCGTATATCCCGCAGGCAACAAATTCGGATTGAAGGTTACAGC  
40 CCTATTTTATAGTGGATTAAACAAAATCAGGACAAGGCAACGAAGCCGACAGTACAA  
ATAGTACGGAACCGATTCACTTGGTGCTTCAGCACCTTAGAGAATCGTTCTCTTTGAGCT  
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GCCGTCTGAACCTTCAGACGGCATTCATTATATTTATTCGTCTTTTTTGTGTTTCGATG  
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45 TCGTCATCGCGGGAAGGCCCTCTTTTCTGCCCGATTGGTTTCATGTTGAAAAAATTTTCC  
GCACCTCCTGCCTGCAACACTGCCCTCCCTTAAACGGCAGCAGCAGCAATACCGCCAAC  
ACCGAGGATACGAATCCCGGACTCATCAGACACACAGCCGCCACCGTATAACGGATAGGC  
CACAACATCTGATAAACGGATACCCCTCCGCGCTTCTCATTCGCCGCGCCGCCAATAAAA  
AGACGGACAGCCCCGTATGCCTGAGCATCAGCACGCCGCGGCAAAACCTGCCGCCATC  
50 AAAAAACAACGTCCAGCCGCCGCCAGCCAAATCGGCAACCCACACAAATCGACATAATCTCC  
AAAAACAGCAGCACCAAAAAACCGATACCGAAAAATCTCATTGACCGTCATCCTTATATT  
TAAGTAAACAGCAAAACCGCCGAACAGGACTCCAAGCGAGCTGCCTGTAAATGATTACAA  
AACCATGTGCTTCAAGCCGAAACAATGTGAAATCTCGCAATATAGTGGATTAAACAAAAAC  
CAGTACAGCGTTGCCCTGCCTTAGCTCAAAGAGATCAATTCTCTAAGGTGCTGAAGCACC  
55 AAGTGAATCGGTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 278>:

**gnm\_278**

```
5  GATGATGATCTTCTATAGAAATAAGCCTGCCAAACTGGGTTCCGGGCAGCTATCTGATT
   CGGGATTTTTCCCGCCACATCACTTCTATCCATGCATCCTGTAACGGCACGTCCATGCCG
   CTCGAACAAATTGCCAAAAACCGCTGGCATGCCGCCCGGTACGCGGCGAGTGGCAAATC
   CGCTACACCGTATATGCATTTCGATTTGTCGGTTTCGAGGTTCTTTCTGACGACAGAACGC
   GGTTTTTTTGACGGATCGTGCCTGTTTTTGAAAGTCGAAGGAACGGAAACGCTGCCGCAC
   CGCTTGGAATTGACGGGTATTCCGTCCGAATGGCGTATTGCCACAACGCTGCCGGAACA
10  GGGAGGTTTGTCTTTCAGCGCGCATCTTATGCCGAATTGATTGACCGACCTGTGAGATG
   GGCTTGATTGAATTTTAGATTTTGAGGCGGCAGGCATTCCGCACACAATTGCCTTAAGC
   GGCATATATCCCGATTTTCGACCGCAACAGGCTGGTTTCGGATATCAAAAAATCTGCGAA
   ACAGAACTGGCGGTGTTTTCCTCCCCTGCCCGTTTCAAAAATATTTGTTCTGCTCCAC
   GTCGGCGACCATATTTACGGCGGTTTGGAAACACACCGACAGCACCGCCCTGCTCGCCGAC
15  CGCCACAGCCTTCCGCCGTACGGTATGACCGATGCCGACGATACCTACACCACATTGCTC
   GGACTTTTCTCCACGAATATTTTACGCGTGGAAACGTCAAATCCATCAAACCTGCCGCG
   TTCGTCCCTTATGACCTCGACAAAGAAAACATAACGAACAACATATGGGCATTGGAAGGT
   ATTACATCCTATTACGACGATTTGTTTTTGGCAGCGAGCCGACCATCTCGCCCGAATCT
   TATTTAAACCTGCTGGCACAAGGCATTACGCGGTACAACAAACCCGCGGCCGTTTGAGG
20  CAGACCTTGGCGGAATCGAGTTTTACCGCGTGGAAACAAATTTACAAACCGGATGAAAC
   AGCCCCAACGCCATCGTCAGCTACTACCAGAAAGCGCGCTTGCCGCATTGTGCCTTGAT
   CTGATAATACGCAACCGAAGCAACGGCAGACATTCTCTCGATACGTTAATGGACAAACTC
   TATCGGGAGTGGAGGGACACACACTCGGGTATTCCGGAACAACTGGCAAATCCGCTGT
   CAGGAAATTACCGGCTTGGATTGGAAGATTTTTTCCAAAAGCGTTATACAGTACCGAA
25  GATTTGCCGCTTGCCGAATGCCTGGCAACCGCAGGCGTGGGACTGACCTTCCTGCCGCTT
   CCCCCACAACACGGCGGCGGATACGCAGAACACATCTGCCCGTCCCGTCGGCAGGCGAT
   TTTGGCGCACGTTTCAAACAAAACACCGACACATCGTCTTGACCCATGTCTTCAACGGC
   GGCAGCGCGGAATCTGCGGCACTGTGCCGCAAGACAAAATCATTGCTTTAGACGGTTAT
   GCCTGCACCGACTTTACCGCACAAATGGGCCGATACCACGTCAATGCAAAAATCAATATC
30  CACTTCTCCGTGCCGGCATATTGCGTCAAACCGTCTTGACGGTTCAGGCAGCGGCAGCG
   GATACTGCCATCCTACATATCACAGACCGGAACCTGTTGGACAACTGGTTGTTTCGGTTAA
   ACTTTCAGACGGCATTGCACACAAAATGCCGTCTGAAAAACAACCGCAAAGTAAAGGAAA
   CAAAATGGCCATTCTGAAACTTGACGAACACCTCTATATTTCTCCGCAACTGACCAAAGC
   CGATGCGGAACAAATCGCGCAACTGGGCATCAAACCGTCATCTGCAACCGCCCCGACCG
35  CGAAGAAGAAATCGCAACCCGACTTCGCCCAAATCAAACAGTGGCTGGAACAAGCAGGCGT
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   CTTCCGCCAACTCATCGGACAAGCCGAATATCCCGTCTTGCTATTGCCGGACCGGTAC
   GCGCTGCTCCCTCCTGTGGGGCTTCCGCCGGGCGCAGAAGGTATGCCGGTTGACGAAAT
   CATCCGCCCGCCCCAAGCGGCAGGCGTAAATTTGGAAAACCTTCAGAGAGCGGCTGGACAA
40  CGCCCGCGTCTGATTACAAGCCGAAACGTTTAAACCACACCTTCAAGCGGCATTCCACCG
   CAACTTGAAAAAGAGGACGGCAAACCTTACTGCCGTCTCTGTCTTCTCCGTTTTTACA
   GTGGGAGACCTTTGCAAAAATAGTCTGTTAACGAAATTTGACGCATAAAAATGCGCCAAA
   AAATTTTCAATTGCCTAAAACCTTCTAATATTGAGCAAAAAGTAGGAAAAATCAGAAAA
   GTTTTGCATTTTGAAAATGAGATTGAGCATAAAAATTTAGTAACCTATGTTATTGCAAAG
45  GTCTCAGTGGGTATAGCGGATTAACAAAAACAGTACGGCGTTGCCTCGCCTTAACCTCAA
   AGAGAACGATTCTCTAAGGTGCTGAAGCACCAAGTGAATCGGTTCCGTACTATTTGTACT
   GTCTACGGCTTCGTTGCCTTGTCTGATTTTGTTAATCCACTATAAAAATTAGAAATGC
   ACATTTTCATTATTCTCGCGCAGGCACTCCAGACTTACCCATTTTCAGTAATGTTTGA
   AAATAAAAGAAAAATCAGATGTTTGTATTCCCGCCTGCGCAGAAATGGAGACGGTGCTCT
50  GTCGTCTCATTTTTGTTTTAATCAACTATATATAGCTGATTAAACATAAGAAATGCCGTC
   TGAAAGACTTTCAGACGGCATTCGTTCAAGCGTCGAACTTTATTGCGCCTTGGTTTCGGT
   TACAAAACCGATTTTGGTGATTCTGCTGACGGGCGGCTTCTAAAGCTTTGTTTACATA
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   GGCGGCTTTCAGACGGCTTCCACTTCCCCGATTTCCACTTTGCTTGAGAATCCCCGCC
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CGGCATAGTAATCATAAACACAATCAGCAACACCAGCATCACGTCCACCAACGGCGTAAC  
5 GTTGATGTGCGGACATCGGAGAATCGTCGCCGGAATTCATCGAACC AAATGCCATAATCAG  
CTATCCTTTTGTATTAAGCAGGCGGACGTGCAAATCGTCGCCATCGCATCCAAATCCTGG  
GTCAGTATTTTTGTGCCGCGATTGAGGAAGTTGTATGCCAACACCGCCGGAATCGCCACG  
AACAAACCCGCCGCCGTCGCCACCAAGTGCCTCGCCAATCGGGCCGGCAACCGCCGCAATA  
CTCATCTGCCCCGCTTTGCCCGATATTGATCAGGGCGTGGTAAATCCCCAAACCGTGCCG  
AACAGCCCCGATAAACGGCGCGGTTCGCGCCGATGGAGGCAAGCGCGGTATCCCGTAATCA  
10 AACCGGCGCATAATCTGCCCATACTGTTGCGGATTTGAATGACCAAATACTCGTTCAAC  
GGCAAAGCCTGCGCCAGTTTCGGACGCTTCGTTTCGGCGGTAGTTGCGGTAAGACTGCAAT  
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TACAGCTTGATGCAGCGCAAGACAACCAAACACCAGTTACGATACTCATCAACAGCATC  
15 AACACAAACACACCAATCAGGACGGGATCGCCCGATTCAAACACTAATTTCAAATTCATA  
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CCGCCTAATTCAATTCAACTTGACGGGGACTTTAAACTCCGTCCAGGCATTGGCTTGAA  
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20 TACCCTGCTCGTCATTCTCCATAGAAAGCGTGGGATAAGCCGGGCGCGGAATGCTGCCGT  
TGGCGCGTAAAGGATTGCCTTTGCTGCTGCCGGCTCCTTCCCCGTGTTGCGCTTTGACAC  
CGCGCTACCTTTACCGCTGCCTTCTCCGCGCCCGTTCCGTCTCCTTTGGTACCAGTTC  
CCTTATCTTCCCCATTGCCCTGCTCGCTGTCTGCTTTGGCAGAAGCATTGCCGGGATGTT  
CGGCAGGTTTTTCAGACGGCTTCTCGACCGGTTTTTCCGCCGTTTTCGGGACAGGCTTCG  
25 CTTCCGGCTTAGGCTCTGGTTTCGGTTTTCTTCGGGTTTCGGCTTTCTTCAGGTTTCG  
GCTCTTCTTAGGCTGCTGAATATCCGCATCCGCTTTTTTCGTAACCAACCGGCTTCAAA  
CCGGCTTGGGCGGCTCGACAGGTTTGGGCGGCTCGGGCACGGGTTGCGGTTTCGGGCGCAG  
CAGGCGCGCTGCACCTTCGGGGGCGCCGTCCCTCCGCCAAATCGCCCAAATCGACAA  
ATTCAATAACATTGCCTGACTCTATCACGGGCAGCTTGTCGCCTGCCAGAGCAATGCCA  
30 CCATTGCCAAATGCAGCAGTGCACGGAACACGACTGCGGGGGTTAAATTCGTTCTT  
TATCCATAATTCGGGCATAATAATAGCAGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 279>:

**gnm\_279**

35 ACGACCAAGGTACGCGCAATCTGGTGGCGGCAAGTATCGCCATCGATATGGTCAAAGTCC  
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ACGCCATTTGCCATATTTTAGGCGTGCGCCCTTAAAGCCGTATCAAACAGTTTCAGACGG  
CATCTAAGGTGTCTAAAAAGCAAAACACCGCCCCATCCGAGCCATTCTGATTTACAATAC  
40 CGGCCGATTGGATTGAACCGGTCTTACAAAATCCAATGGAGAGTTCAACATGACAAC  
ATTACATTTCTCAGGCTTCCCGCGTGTGCGGCGCTTCCGCGAATTGAAATTCGCACAAGA  
AAAATACTGGCGCAAAGAAATCAGCGAGCAAGAATTGCTGGCTGTTGCTAAAGACTTGCG  
CGAGAAAACTGGAAACACCAGGTGCTGCCAACGCCGATTTTCGTTGCCGTAGGCGATTT  
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CGGCTTCGACAGCCAAAACCTGTCTTTGGAACAATTCTTCCAATGGCGCGCGGTAACAA  
45 AGACCAATTGCTATCGAAATGACCAAATGGTTTCGACACCAACTACCACTACTTGGTGCC  
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GTGGGTGGGTAAAGAAAAAGGCGCCGTGCAATTGACCGTCTGAGCCTGTTGCCTAAACT  
GTTGCCTGTTTACGTTGAAATCCTGACTGCTTTGGTTGAAGCCGGTGCCGAGTGGATTCA  
50 AATCGACGAGCCTGCTTTGGCTGTGATTTGCCTAAAGAATGGGTGGAAGCCTACAAAGA  
CGTTTACGCTACTTTGAGCAAAGTAAGTGCCAAAATCCTGTTGAGCACTTACTTCGGTTC  
TGTTGCCGAACACGCGCATTTGTTGAAAGCCCTGCCTGTTGACGGTCTGCACATCGACTT  
GGTACGCGCCCCCGAGCAACTGGACGCGTTTCGCCGACTACGACAAAGTCTGTCTGCCG

CGTGATTGACGGCCGCAACATTTGGCGCGCAACCTGAACAAAGTTTTGGAAACTGTGCA  
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5 CGAAGGCCGTGATTCTGTTGCCGAAGAACTCGCCGCCAGCCAAGCTGCTGCCGACTCCCG  
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CAACGCAGACCAACGCAATCTCCATTTGCCGACCGTATCAAAGCGCAACAAGCATGGTT  
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10 CCAGGCACGCTCAGCCTTCAAAAAAGGCGAAGTGTCTGCCGCCGATTACGAAGCCGCGAT  
GAAAAAAGAAATCGCCTTGGTGGTTGAAGAGCAAGAAAACTGGACTTGGACGTACTGGT  
ACACGGCGAAGCCGAGCGTAACGACATGGTTGAATACTTCGGCGAATTGTTGAGCGGTTT  
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TATCTTTGGCGACGTAAGCCGCTCTGAAGCCATGACCGTGGCTTGGTCTACTTACGCACA  
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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 280>:

20 **gnm\_280**

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CGGTACATTTCCGGCTTGGGTTCCCGACGGACAACCGCCGACGGCAAGGCCGGGAAAA  
TCAAACGTGTTCCAAACCGCGCAGCAGTCTTTCGCGCAATCCTCATACATCGCGCCTTGC

-700-

ACGATGCCGAACAGCGCGTTTCGGGTTTTTCAAATCTTCAAAGGCTTTTTTGCTCCGTTCC  
GCCCAGCGCAGGCTCATTTGCAGCGATTTTCGCGCCTGTTTCGCGCGTCGCCTCGCCCGGC  
GTGCATTTCGTCCAACTGCATCGCGATATCCGAGTTCAAAACCGTTTGGATTTTCATGGAA  
ATTTTCAGGCGATAAAAAACAGCTTGTGCGCGTTAATCGGGCTTTTGAACGTACAGCCTTCT  
5 TCCGTCAGCTTGCGCATATCCGACAAAAGAAAAACCTGAAAACCGCCCGAGTCGGTCAGA  
ATCGGTTTTGTCCAGCCGATAAAACCGTGCAGGCCGCCGAATTGCCCGATAACTTCCAAA  
CCCGGACGCGACCCACAAATGATAAGTGTGCCCCAAAATAATTTGTGCCTTGATATCGTGC  
AGGTTTTGCGGGTTCATCGCCTTAACCGAACCGTAAGTACCGACAGGCATAAATACCGGC  
GTTTCAATTTGCCGTGGTTCAACTCCAGCGTCCGCGTCGGGCGAGACCGTCTTTTTTG  
10 TGTAAGGTAAATTTAAGCATAAGATTGAATGTCAGTTGGGCGACAGGGTTCGAAATATAT  
TTTAAAAGACGGCATTATAAATGATTTCCACGGTTTTTCAGACGACATCCCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 281>:

**gnm\_281**

15 GTATTCTGGGACAGCCGTAGACTTACTTATTATCCTAATGTTATTTTTTGCCAAAAGAAA  
AAGTAGAAAAGACATCATTAACATCTATTTAGGACAAATTCTAGGCTCTGTTAGTCTGAT  
ATTGCTAAGTTTACTTTTTGCATTTGTCTTAGATTATATTCCTAGTAAAGAGATTTTAGG  
TTTGCTCGGCTTGATTCCAATTCCTAGGCATCAAAGTTTGTCTTTTAGGAGATTCTGA  
TGGAGAGGCTATTGCCAAAGAGGGTTTGCGCCAAGATAATAAAAACCTGATTTTTCTAGT  
20 CGCTATGATTACTTTTTGCAAGTTGTGGTGCTGACAATATTGGTGTCTTTGTCCCATATTT  
TACTACCTTAAATTTAGCGAATTTGATAGTGGCTTTACTTACCTTTCTAGTCATGATTTA  
TCTCTTGGTTTTTTTCTGCCCAAAAATTAGCACAAAGTCCCTTCTGTTGGAGAACTTTGGA  
AAAATATAGCAGATGGTTTGTGCTGTTGTTTATTTAGGATTGGGGATATATATCCTGGT  
TGAAAACAACAGTTTTTGATATGCTATGGACTGTGTTGGGCTAGGAAAAAATATTATGAAA  
25 AAGATAGTATCTGCAAAGACTGCCATGTGCAGTCTTTTTGTTGCCGGTCTTTTTGTGTC  
TGATGCCGTCTGAAGCAGTCTCTGCACGACCTTTGTGCGAATATTTGCTACACTTGGCAA  
TCCGTCCATTTTTTCTACGCTTATGCTGACCTATACCCCGCCCGATGCCCGCCCGCCCG  
CCAAACCCACGAAAAGCCGTGGCTGCTGCTGTTGATGGCGTTTGCTGGTTGTGGCCCG  
GCGTGTTTTCCACGATTTGTGGAATCCTGACGAACCTGCCGTCTATACCGCCGTCGAAG  
30 CACTGGCAGGCAGCCCCACCCCTTGGTTGCCCATCTGTTCCGTCAAACCGATTTCCGGCA  
TACCGCCCGTGTATCTTTGGGTTGCCGCCGCTTCAAACATTTGCTGTGCGCGTGGGCTG  
CCGACTCATACGATGCCGCACGCTTTGCAGGCGTATTTTTGCCGTTATCGGACTGACTT  
CCTGCGGCTTTGCCGGTTTCACTTTTTTGGGCAGACACCACGGGCGCAGCGTCGTCTGA  
TTCTCATCGGCTGTATCGGGCTGATTCCAGTTGCCCATTTCTCAACCCCGCTGCCGCCG  
35 CCTTTGCCGCCGCCGCGGACTGGTGCTGCACGGTTATCTTTGGCTCGCCGGCGCGTGATTG  
CCGCCTCTTTTCTGCTCGGTACGGGCTGGACGCTGATGTCGTTGGCAGCAGCTTATCCGG  
CAGCATTTGCCCTGATGCTGCCCTTGCCGTAAGTATGTTTTTCCGTCCGTGGCAAAGCA  
GGCGTTTGATGTTGACGGCAGTCGCCTCACTTGCCCTTGCCCTGCCGCTTATGACCGTTT  
ACCCGCTGCTCTTGGAACAAACGCAGCCCGCGCTGTTCCGCGCAATGGCTCGACTATCACG  
40 TTTTCGGTACGTTTCGGCGCGTGCGGCACGTTTACAGCGGCATTAGTTTGTCTTACTATC  
TGAAAACCTGCTTTGGTTGCATTGCCCGCGCTGCCGCTGGCGGTTTGGACGTTTGGC  
GCACGCGCCTGTTTTCGACCGACTGGGGGATTTGGGCGTCGTCTGGATGCTTGCCGTTT  
TGGTGCTGCTTGCCGTCAATCCGCGAGCGTTTTTCCAGGATAACCTCGTCTGGCTGCTTCCGC  
CGCTTGCCCTGTTTCGGCGCGGCGCAACTGGACAGCCTGAGGCGCGGCGCGGCGGCTTTG  
45 TCAACTGTTTCGGCATTTATGGCGTTTCGGACTGTTTGGCGTGTCTGTGGACGGGCTTTT  
TCGCCATGAATTACGGCTGGCCCGCCAAGCTTGCCGAACGCGCCGCTATTTACAGCCGT  
ATTATGTTCTGATATCGATCCCATTCCGATGGCGGTTGCCGTAAGTTTACACCCCTTGT  
GGCTGTGGGCGATTACCCGAAAAACATACGCGGCAGGCAGGCGGTTACCAACTGGGCGG  
CAGGCGTTACCTGACCTGGGCTTTGCTGATGACGCTGTTCTGCCGTGGCTGGACGCGG  
50 CGAAAAGCCACGCGCCGCTCGTCCGGAGTATGGAGGCATCGCTTTCCCGGAATTGAAAC  
GGGAGCTTTCAGACGGCATCGAGTGTATCGGCATAGGCGGCGGCGACCTGCACACGCGGA  
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GTGCGCGTCCGCGCAACAAAGACAGTAAGTTCGCACTGATACGGAAAAATCGGGGAAAAATA  
TATAAAAAACAAACAGATTGAGCCGAATTTCTGGATTAAGTGCCGGAAATCGCGTATAAATT  
GCGCGATTAAACCTTTATATAGTGGATTAAACAAAAATCAGGACAAGGCGACGAAGCCGCA  
GACAGTACAAATAGTACGGAACCGATTCACTCGGTGCTTCAGCACCTTAGAGAATCGTTC  
5 TCTTTGAGCTAAGGCGAGGCAACGCCGTACTGGTTTTTGTAAATCCACTATAAATCAGCC  
GTTTTGCAGGCATCACACAGGAGCGACAATTATTATGATGACCCTCTATTCCGGCATTAC  
CTGCCCTTCAGCCACCGCTGCCGCTTCGTTTTGTACGAAAAAGGTATGGATTTTGAAAT  
CAAAGACGTGCATATTTACAACAAACCCGAAGACCTCGCCGTATGAATCCGTATAACCA  
AGTTCCTCGTGTGGTCGAGCGCGATTGGTGTGTCACGAGTCCAATATCATCAACGAATA  
10 CATTGACGAACCTTCCCCATCCGCAGCTGATGCCCGCGATCCCGTTATGCGCGGTGCG  
GGGCCGCTGGTGTGTACCGTATGGAAAAAGAATTGTCAACCACGTCCAAGTGTAGA  
AAACCCCGCGCCACCAACAAGGAACAGGCAAAAGCGCGGAAGCCATCGGCAACGGTCT  
GACCATGCTTGCCCTTCGTTTACGAAAAGCAAATACATCCTCGGCGAAGATTTTTCTAT  
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15 CAAAAGTGCCGCGCCGCTGCTCAAATACGCCGAGCGCATCTTCAGCGCGAAGCCTTTAT  
CGAAGCACTGACACCCGCCGAAAAAGCCATGCGCAAATAAGTCCGAAATGCTTGCAAAAC  
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CCGCACATCCTTGTCTGGGTCAACGAACACACGCGCGTCCCATGCGAGTACGTCCGCGAC  
20 AACGAAATTATGCTCAACATCGGCGCGACCGCCACGCAAAACCTTCAAATCGACAACGAT  
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CACGTCTCAGCCTTTTTCGCACGGGAGACCGGAGAAGGTATGGGGTTTGAGTTGGAAGCG  
TACCGCCCCGATACGCCGCTGAAAACACCTCTGCCGAAACCGCGCCCCGACCGCCAAA  
AAAGGCTTGAAATTGGTCAAATAAATCTATGCCGTCTGAACGGAATCGTGTTCAGACGG  
25 CATTTTGTCCGATGGGGCGCAAACGGAATCTGTTTATCGGCAAAACCGGTTTCGGCGTAT  
CAAAACCGTGTTGCCCTGCCGATTTCGATATTGGGATATTGAAAATGCCGTCTGAACCTG  
CGATACGGGCTTCAGACGGCATTTTGTCCGATATTCGGGCAATCAGGCGGTGAGCACGGC  
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CCCCATGACTTTACCCATATCCGCCATACCTGCCGCGCGGTTTCGGCAACGGCAGCTTC  
30 GACCTCGGTACGGATTTTCGCCGCGGAAAGCATTGGGGAAGGTAGCGGTGCAGTACCTC  
GATTTCCGGCGTTTTCTTTGTCTGCCAAATCCTGACGGCCGGCTTCAGTGTAGATTTTCGC  
GCTGTCTTTTCGCTGTTTGACCATTTTGGTCAAGATGGCGGTGATTTTGGCATCGTCGGC  
TTCGGTGCGTTTCGTCCACTTCAAACCTGTTTGACGGCGCGGTTGATGAGGCGGATGGTGCC  
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35 CAGGCTCATGATGCTCTCGCTGGGATGTCGGATGGAACGGCGGGTTTCGATGCCGTCTG  
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TTTTGCAGGCGTTTTACGGCTGCCGCTTTTTTGCCTTTCGCTTCGGTAGTCGGTTTTTTCG  
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40 CGGCGCATAGCGACTTCAAATGGTTCAATCTCTTTACGCGGATTGCAGGCATTTTATTT  
CCTTTAATAAATTCGGTTGTTTCATCTGCCCATCATATCGGTGGAAAGGGTAGGGCAGAC  
GGTGTGAAAGTTTACCGTATCGCTGTGCCTTGCGGCGGCGGGATACCGCCGTGACGGA  
AACATCACCTCCTAACGGGTGGGCTTGTGCCGTGTCAAGCTGCTTGAAAAAGCAGGAAAA  
45 ACAATTTTCGATTGTCTTATATTTATGGTTCCCGTCAATGCCGTTTCGGGATAAAAAATG  
CCGTCTGAAAGACCGGCGGGTTTTAGACGGCATCGGTACGTACGCTGCAGGAACAATG  
CCCATACGCTGTTTGAGCGGGATGTGCGGCGCGCGAAGAGGGCGGCGTAGTAGGCGGCA  
TTGGCCATCACTTTTTTGACATAGTCGCGCGTTTCGAAAACGGGATGGTTTCGGCATAT  
ACCGCGCCTTCGAGGGGCGGTGTCGCCCTGCCATCGGCGCGCCCTGCCGGGACCGGCGTTA  
TAGCCTGCGGTGGCGAGGACTTCGTTGTTTTGCAGCGCGGTTTGGTGTCCGCCATATAC  
50 CACGTCCCCATACGGATATTGCCGTGCGCGGTGTAAAGTTGTGCGGCATCCATACCGATT  
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55 AAACCGTGGTCAACGCGGTTTGGCGGCGGTCAGCAGCTTGTCTTCGTCAAAGCCGCGT  
GTGGCAAAACGCCATTCCGCTGAGCCTGACGGCGCATTTTTGCATCACCGGCAGATTGG  
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CTGTTTTTGCCGGCATCGGGCACATTGTTGCGCGTATCGATTTTCCGACCCAATTCTTCC  
CCTGCCAGCACCGCATAAAAAATTCCTGCCCGTCGCTGCCGCCTGTTTGTAAAGTTTTTCC  
GCCTCTTGCGTGTTGCCCGTTGCGGCGCGGCTGCGTGCCAGCCAGTAGAGCCAGGTCGGG  
5 CTTTTTTGCAAGTTTTTCGGGCATATGCGAGATAACGGAGGCCAGCTCGTCCCAACGTCGG  
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10 TATTCGCGCGAACCTTGTGTACCGCCGTCAAACGGGCTGCCAATGCGGCGGCAAGGTTG  
CGTGCGTCTGTGGTTTGGCGGCGGCCAGCAGTCCGCGCACGCGCTCCAGGCGTCGTTG  
CCGTCCAACAAGCCGATGCGGCTGCCTGTTCCAACAGTTTGGTGCAGCCGAAGGCAGT  
TTGCCCGTATTTTTTGACCAGTTACGCGGCAGCGGTATAGTCGTTGCGGCTCGAATCGGCG  
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15 AGCGTCCACTGTCTGCGTGCGCCCAAAGACTTCAGCCACTCGTTGCGGACATTTTCCGCC  
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GCAGGGCGGGTGGGAACGCTTGCCGAAAGGTGCGCAGTTTCTATATTGTCTGCCGGGGTC  
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GGCAGGGAATGCTTCATAGAGGGTAGGTACATCGGATTTCTTAAGAATCGGAACCTGA  
20 ACGGTACGGTTGGAAAAGACAAAATGCCGTCTGAACAGGCGTTTGCCCGAATTATATGC  
CGAAACTGCACCGCCTTTTGAATGTTTCCGACATAATTTATAGTGGATTAACAAAACCA  
GTACGGCGTTGCCTCGCCTTAGCTCAAAGAGAACGATTCTCTAAGGTGCTGAAGCACC  
GTGAATCGGTTCCGTACTATTTGTACTGTCTGCGGCTTCGTCGCCTGTCTGATTTTTG  
TTAATCCACTATATGTTTTTCAATTATTTGCCGTTTTTGGTGCAGAACGCTGCCTTTGCC  
25 GTTTCAGACGGCATTGTCCGAAATGGTTGCCCGCTTCCTGCTTTATTGACAAAAAATGC  
TTTCCCGATAATATCCTACGAAAATTAACCTGCCGATTGACACAGCTTGCGGGCATAAC  
AGCTAAAGCGTTCGACAAATTCAGCTTTATCTTCCGCGCCCGTTGTGTCCGACATCGGG  
CTTTGTGTATGGGAAAGACAATGATTATTTGGACAAGGTTTCCAAGCATTACCAAACG  
CGCGACAAGACCCGTTTTTGCCGCGCTCGAGCCGACCAGCCTCGAAATCCGCGACGGCGAA  
30 ATCTTCGGGCTGATGGGTTATTCGGGTGCAGGCAAATCCACCCTGTTGCGCCTGATTAAC  
CTGTTGGAACGCCCCGACAGCGCAAGGTCAACGTCTGCGACAAGAGCTGACCGCGCTCGA  
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GTCTGAAAAAATCAAAGCGCGCGTTAAAGAATGCCTTGAAATCGTCGGCTTGACCGAACG  
35 CGCCGGCCACTATCCCGCCAGCTTTCCGGCGGGCAGAAACAACGTGTGCGCATCGCCCCG  
CGCACTCGCGCCCAACCCCAAGTCATCCTCGCAGACGAACCCACTTCCGCCCTCGACCC  
CGCCACACGCGCAGCGTCTTGAATGTTTGAAGACATCAACAAACGCTTCAACGTAAAC  
CATCTCATCGTAACCCACGAAATGAGCGTCATCCGCGCCTGTGCGACCGCGCGCCCT  
CTTGGATAAAGGCAAAGTCGTGGAATCGTCGAAGTACGCGGCAACCAAATCCACGCCCCA  
40 ATCCGACATCGGGCGCGAACTGATTGGGAGGACTGATATGGCAGACTTAACATTCCAAC  
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TGCTCTTCGTAACCTCCAGCCGCCAACTGCATTACAACAAGCTGGTGAACCTCCTGCTCG  
ACAACCTCGTCAACCTCATGCGCGCCTTCCCCTTCGTATCCTGATGATTGCGATGATAC  
45 CCGCCACACGCGCCATCGTCGGCAGCACCATCGGTCCGCTTGCCGCCTCGTGGTGTGA  
GCGTGTGCGGATTGTTTTATTTTGGCCGACTGGTGGAAACAAAACCTGCGCGAAGTCCCCA  
AAGGCGTAATTGAAGCCGCGCGCGGCGATGGGTGCGCGCGCGATTGCCATCGTCTGCAAAG  
TCCTCTTGAACGAAGCGCGCGCGGGCATGGTTTCCAGCATTACCGTGCTTGCCATCGGGC  
TTTTGTCATACAGCGCGGCGGCGAGGATGATAGGCGGCGGCGCTTGGGCGACCTCGCCA  
50 TCCGCTACGGCTACTACCGCTACCAAACCGAAGTCATCATCTTCATCGTCGCCCTCCTCG  
TGCTGCTGGTCATCCTGATTCAAAGCACGGGCAACGCGTTGGCGCGGAACTCGACAAAC  
GTTGAACCCGAATGCCGTCTGAACGCCAAAACCCCCACCGCTATCCGAAAAATGCTATAA  
AATCCCCCTGTTGCGGGCAAATGCCGTCTGAACGCCGAATCCGGACGGCAGGACTCCCTG  
55 CCGGTCAATTTTGTGTTGAACTGCCACAACATCAGGAGAAAATATGAAAACCTTCTCAA  
AACCCCTTTCCGCGCCGCTCGCGCTCATCCTCGCCGCTGCGGCGGTCAAAAAGACAG  
CGCGCCCGCGCATCCGCTTCTGCGCGCGCGACAACGGCGCGGCGGAAAGAAATCGT  
CTTCGGCACGACCGTCGGCGACTTCGGCGATATGGTCAAAGAACAATCCAAGCCGAGCT

GGAGAAAAAAGGCTACACCGTCAAACCTGGTCGAGTTTACCGACTATGTACGCCCGAATCT  
 GGCATTGGCTGAGGGGCGAGTTGGACATCAACGTCTTCCAACACAAACCCTATCTTGACGA  
 CTTCAAAAAAGAACACAATCTGGACATCACCGAAGTCTTCCAAGTGCCGACCGCGCCTTT  
 5 GGGACTGTACCCGGGCAAGCTGAAATCGCTGGAAGAAGTCAAAGACGGCAGCACCGTATC  
 CGCGCCCAACGACCCGTTCAACTTCGCCCCGCTCTTGGTGATGCTCGACGAACTGGGTTG  
 GATCAAACCTCAAAGACGGCATCAATCCGTTGACCGCATCAAAGCGGACATCGCCGAGAA  
 CCTGAAAAACATCAAAATCGTCGAGCTTGAAGCCGCGCAACTGCCGCTAGCCGCGCCGA  
 CGTGGATTTTGCCGTCGTCAACGGCAACTACGCCATAAGCAGCGGCATGAAGCTGACCGA  
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 10 CAAAGACAGCCAATGGCTTAAAGACGTAACCGAGGCCTATAACTCCGACGCGTTCAAAGC  
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 CAAATAAGGCAGTCGTATAAAATGATGCCGTCTGAACTGTATCCGTGTTTCAGACGGCATT  
 TTTGTCCTTTAATCCGCCATTCCCTGCCATTCCGCCGAATCCGGCGTATCGATTCCGAAC  
 AGCGACAAAGCGTGTGCAACACTGTGCGCCACTATGTCGTCCGCGTCTGCGGTTTGCGG  
 15 TACATCGCAGGAACAGGGGAAACACCACGCCGCCATTTCGTTACCCGCTTCATATTG  
 TCCAAATGGGCAAGGTTTCAGCGGCGTTTCGCGCACCATCAGCACCAGCCGCCGCTTTCC  
 TTCAAAACCATCCGCCGCACGCGTCAGCAGATTGTCGCCGAAGCCGTGCCGACAGAG  
 GCAAGCGTCCGCATCGAACAGGGGGCGACCGCATCCCATCCGTTTAAACGTACCGCTG  
 GCAATGCACGCCCCGATATTGCCGATCGGATGCACGAAGTCCGCCAAGGCATATACCTCG  
 20 TCTCTCGCATAAGCCGTTTCCGAAGCGCGCGCCATCTCCGCACCTTTCGATACCACAAGG  
 TCGCTTTCGACATCTTGCGCGCGCAAAAGTTCCAAAGCCTTCACGCCGTATTGGAACCG  
 CTCGCCCCGCTGATGCCGATTATCAAACGCCGTACCATCATCCGCCTTTCCCATAAAACC  
 GCCTGCAACGGCAAACCGGCTATTATAGTGAAAAACAGAAATCCGATAAACGCGGATAC  
 AAATTGTGCGCAACACCCAATATCCGATAAAATACCCGATTTAACATCCTATCTGAATAG  
 25 GCACGGGAGGGCGGTATGGCAAAAGTAAAAGGCGGATTGGGGCGCGGCTTGGATTGCTG  
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 ATCCGGCCCCGGCGCTATCAGGCGCGTGTTCAAATCGATGACGAAGCCTTGCAAGAACTG  
 GCAGATTTCGATTAAGGCGCAAGGCGTGATACAGCCCGTCATCGTGCGCAACACGGACTG  
 TCCCGATACGAACTGATTGCAAGGCGAACGCCGTTGGCGCGCCGCACAGATTGCCGGCCTG  
 30 ACCGAAATCCCCGCCGTTATCAAAACCATCAGCGACGAAACCGCATTGGCAATGGGTTTG  
 ATCGAAAACCTCCAGCGCGAAAACCTCAACCCCATCGAAGAAGCACAGGCTTGAAACGC  
 CTTGCCGACGAGTTTCGGGCTGACCCACGAAACCATCGCCCAAGCCGTTCGTTAAAGCCGA  
 AGCGCGATTTCCAACAGCCTGCGCCTTTTAAGCCTGCCCGAACCCGTGCAGGAAATGCTT  
 TACCAACGCCGCCTCGAAATGGGGCACGCCCGCGCATTGCTGACCCTGCCCGTCGTCGAA  
 35 CAGCTCGAATTGGCGCAAAAGGCCGTCAAAAACGGCTGGTCCGTTGCGCGAAGTCGAACGC  
 CGCAGCCAGGCCGCCCTTCAAAACAAACGTCCCGAGCCCAAAAAGACTGCCGCGCCGAC  
 ATCGGCCGCCTGAATGATTTGCTGACTGAAAAACTGGGTGTCAACGCTGAAGTCAAAACC  
 GCCAACCACAAAAAAGGCAGGATTGTCCTGTATTTGATACGCCTGAAACGTTTCGGCCAC  
 CTGCTGGAGCAGTTGGGCATAGATTACCGGCCCTAATTTTGCGGGATATACCGTCTGAAA  
 40 TATAGAGAATAGCTTTCAGATTTTAAGTGGGAAATATAATTCTATTGACATTTTCTGTC  
 TTCACGTAAGAATCGTTTTCCTGTTTTCATTTTAAATTTTCGAAGAAATATGAACACAC  
 GCATCATCGTTTCGGGTGCGTTTCGTTGCGTTGGCATTAGCAGTTGCGGCTCAATCAATAA  
 TGTAACCGTTTCCGACTAGAACTTCAGGAACGTGCCGCGTTTGCCCTGGGCGTCAGCCC  
 AAATGCCGTAAAAATCAGCAACCGCAACATGAAGGCATACGCATCAACTTTACCGCAAC  
 45 TGTGGGTAAGCGCTGAGCCAATGCTATGTTACCAGTGTAATCAGCACAATCGGCGTTAC  
 CACTTCCGATGCAATTTGTTTGGGAGGCGAACGCACAAAGGCAAAAGTCAATGCAATGC  
 TTTGCTTAAAGCGGCAGGCAGTTGCTAATCCTTTATTTCGAAAAGGTCGCTGAAAATAT  
 TTTTCAGACGACCTTTTATTATTGAGCAAATTCGCCAACTGCCGACAATCCGACCGATA  
 AACTGCTACAATTTTCGC

50

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 282>:

#### GNMCL71F gnm\_282

CCGAAGTTGGATCGCTCTAGAGGATCCCCTGCCGATGTAGCGCGCTCCTGGTACGGGCAT



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AATGCCCTGGGCTTCTTCCTGACTGCCGGCTTCTTGGGTATGATGTACTATTTTCGTACCC  
 AAACAAGCAGCCCCGCCCCGTTTACTCCTACCGCCTGTCCGTGCTTCACTTCTGGGCGTTG  
 ATTTTACCTATATGTGGGCGGGTCCGCACCATCTTCACTACACTGCGCTGCCTGACTGG  
 ACGCAATCTTTGGGTATGGTTCTGTCTTTGATTCTGTTTCGCACCCCTCTTGGGGCGGTATG  
 5 ATTAACGGCATCATGACCTTGTCCGGCGCGTGGGACAACTGCGTACAGACCCGATTCCCT  
 AAAATCCCGGATGGAACCCCTGGTCCCTTCTACGGAATGTCTACCTTTGAAGGCCCGATGAT  
 GTCGATTAAAACGGTCAATGCATGAGCCACTATACGACTGGACCGTCGCGCACGTTCA  
 TGCGGGTGCCTTGGGCTGGGTAGGCTTTGTAACCATCGGTTCCGTCTATTACATGATTCC  
 CGTCTGTTTCGGCAAAGAACAGATGCACAGCACCAAGC

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 283>:

### gnm\_283

TTGAACAGGTTAAcGAATTTGTTGTTGAATTTGTCCACGCGGCCGGTGGTATCAACGATTT  
 TTTGGGTGCCGGTATAGAACGGGTGGCACAGGGAGCAAACCTCGATATTGAAGTTTCTT  
 15 TTTCCATCGCGGATTTGGTTGCGAATTTGTTGCCGCAAGAGCAGGTAACGTTGACTTCGT  
 GGTAGTTCCGGGTGAATACCTTCTTTCATTTGATTTCCTTTCAAAAAGCGGGCATAGGGG  
 ATGTACCTATGCTACAGACAAGTCCGACATTCTCGCTATTTTCTGTTGTTACGTCAAGAG  
 TATATTCGATAAAATGTATAGTGGATTAACAAAAACAGTACAGCGTTGCCCTCGCCTTGC  
 CGTACTATCTGTACTGTCTGCGGCTTCGTTGCCTTGCCTAATTTTTGTTAATCCACTAT  
 20 AAAAAAGTTCTTTTGAGGGAGGTTTGATGGGATCAAAATCTTTTTCTGCTGCTGCGTTT  
 TGCCGGTTTCGGGGTTGCCGCCGTACATATGCGCGGCATCGGCATCGTCGGCAGACGGGT  
 GCGCGGTTTTTTTGGCGCGGCGGGTTTTCTCCGCATATCGGACGCGGGGTCAATATCGAACG  
 CGGGGCGTATGTGTTTCCGGATACGGTTTTTGGGCGACGGCTCGGGCATCGGGGCAAACTG  
 TGAAATCTGCCGTGGGCTGGTGGTCCGCAAAAATGTGATGATGGAGCCGGAATGTCTGTT  
 25 TTATTCAAATAACCACAAGTTTGACCGTTCAAAAACGCTTTGAGGGCTACACGGAATC  
 CGTCCGATTACGTTGGAGGACGATGTCTGGCCGGGGCACAGGGTGATTGTAATGGCGGGG  
 GTAACCGTCGGACGCGGTTCCGGTCGTGGGCGCAgCGCGGTGGTTACAAAAGACATTCCGC  
 CCTACTCTTTGGCGGCAGGCAATCCGGCAGTGGTGAAAAAGAATCTGCCGGAAGGTTGAA  
 TGCCGTCTGAACGTGTCCGGCGGATGATCTGAAAAAACAGGAACATCGTTTCTGTTTTT  
 30 TGCCTTTCAGACGGCATCGCTATTGCGCCACGCGCGtATCGATATCTTGGTAGAGTTTGC  
 CGAAATCGGGTTCGCCGACGTAGGTTTTGAGGATTTTCGCTTTTTTSCCGATAAGGACGG  
 AAGTCGGATAAACCTGTGTCCGAACGCCTGTCCGACAGCTTTGTCCGCATCATAATGA  
 CGGTAACCGGCAAACCGTAGTCTTTGACATATTGGCGGACGCTTTCTATCGGATCGATGG  
 GCTGGGCGACGGCAAGTACTTGGAAGTTTTTTGTTTTATAGTCATTTGCCGTTTTAATGA  
 35 TTTTGGGCATWTCGCTCACACAACCCGGACAGGAGGGAAACCAAAAATTAATCAGGGTTA  
 CTTTGCCTTGCAGGTCGGCGTTTGGAACGGTTTTTCCGTGCAGGTCGGGACGGGAGAAGG  
 CGGGCGCGGTTTTGCTGTCCGGGATGAGGACGATGGCAAGGAGGATGCCGATCAGTGCGA  
 CGACGGCGGCGGTGAGTATTTTTTTTCAATTCGGACAAGGCTTCCAATGCGCGGGCAAGGGT  
 GGCGGGCAGGCTGACGGTGCCTTGTGTGGCGCGTGGACGGGCATCAGGGTGATGTCCGC  
 40 TTCTGCGGCGGTTTTGCCGTTTGGCAGTGTAACTCGTCTGGGTGAGCACAATACGGCGCGT  
 GCCGGGGGTTTTTTCAGGCGGCATGAAAACGCAATACGTGCGCTTCGACGGCGGGGCGGCT  
 GTATCGGATGTGATGCGGGCGACAATCAGTATGAGGCCTGCCAACTCGTGACGACAGTCC  
 GCGTTCTTCAAAAACGCCAGCGCGCTTCTTCGAAAAATTCGAGGTAGCGCGCATTGTT  
 GACATGGCCGTAGCCGTCGAGATGGTAGTTGCGGACGGTCAGCTTCATCAGTTCAGGTTG  
 45 ATGGGTTGGAAGGCTTCGCGGGCAAGCGGTTTCGTGTTTCGAGGTCGGTGATGACGGTAGAA  
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 50 AAAGGTTCTAAAGGGATGAGGACGAATACGCTGCGGTTGACTTCGTACATGGTTTTTCCT  
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5 GACAGGGGTGCGGAAGACGATATTCTTGGGCGAATAAACGGAGGTAATACCCGTGCCGAG  
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-706-

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 AACATCAGTGAAAGGACGCTGCAACGCCGTATGCGCGACCATTTCCGGATTACGGCAAGC  
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 25 AGCATAGGCGAAACCGCATATTTATGCGGCTACCGCCACGTTTCCAGCTTTACTCAGGCA  
 TTCAGGCAATATTTCCGGCAGCACGCTGCGGAAACCAAAAAAGAAAACCGGTAAGCCGCA  
 TTTGATTTCAAACCCGAAATCCGCGTGTATAGTGGATTAAACAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 284>:

30 **gnm\_284**

CTCGCACGTATGGTTACCTCAGGCGAGGCGGACTTGGCGATTGTTACGGAACGGATAGAC  
 GACCATCCCGAATGGGAAAACCTCCCTGCTATGACTGGACTCATGCGGTTATCGTACCG  
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 35 CCGCTGATTACTTATGAATTTGCATTCAATGCGGGCAGCAGCATCGCGCGGGCATTTTCC  
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5 TAGTATTATGCGAAGCCATACCGTACCTTTTTGTGCGCTTTGCCCCATCATGATTATAGT  
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25 CGCCAAACCTGACGACGAACCTCTCCATCGCCCTCAAAGAAGGCTTCTCCAGCGCAACTT  
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35 CATAACGTTCCGCACCTTTGTGTCCGACCGTTCCGAAACCAAGATATAGTGGATTAACAA  
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40 ACGGCGGCGGCAGGCAGGGTAATGACCCACGCCAAACCGATGGGCTTCATCAGTTTCCAG  
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CTGACCTCAAATACCGCCGAATCAGCAAAGCTGCGGGATGGTCAGCGTACCCGCACCG  
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CCGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 285>:

**gnm\_285**

```
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10  CGCCGCCGTAACCGACAACACACCGTGATCATGCTGCCATTGCGCAAAACCATAGGGGC
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15  CCGCTTGCCAAAGTGCTGCGGATTTCTTCAAAAAGAGTTCGACGATTTCTTTGGCATCG
   TTTTTGGTGACGTTGCTGACTTTGTCTACCAAAATATCGGCCAGTTCTGCTTTAGTGAGA
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   CAGTTTTCCGATAAGCGGCTCGACTGCCTCATCCGTACGCGTGTTTTCCATATCCTGCAA
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30  AATTTCCACCAAGCCGCCGATGAGCGTGGAACGCATCACGGCATACTGCGCCGCCAGCGG
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   ACGCGGGCGGCGTGTTCGGGCAGTTCAGCATTTTCAGACGGCCTGACGTGTAATCGTC
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35  GATGTCAAAACGGAAGCTCGGCGCGGTAACGCGGAAGCCTTCGCGGTTTTCTCGGGCTG
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   TTCCACCATCTCGCTGCCGCACCACCGCAAATCTGCAACACCAATTTCGGTAGCACGTT
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40  ACCGAAACCGTATTGGCGCGATTTGCCGGCGATGATTTCCGGCGCAAACCAAGCCGCTTC
   CAGCACGATATTTGCGTGCCGTCTGAAACCGCGCTCGCCGCGCCGCCATTAAGCCCGC
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50  CAAATCCAAGTATTTCGGGATATTGGTACCGACGGGCGCATCTTCAGGCAGAATGTGCAG
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   CACCTCGCCGCGCATTTTGGTCGGCTTGATTTTGAATTTACCCGGCAAAACGGCACCCGG
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TTTTGTTTTCAAATACCTGCAAATTTACATAAAATATGAAAATCTGTAAATGTTTATCT  
40 ATTACCCAGCGCGCAGTTGTCATATCTATTTTCCCTATTCTCTACAATTTTTTTAATTA  
ACAATGGAGGAATAGATTACCAATACATTGCCGAATTAATAATTCTGATGTATCGTCGG  
GAATATTCCAATCAATAGGTAATGATGTTAAAAGCATTAACTCTAATGGTGTAAAACTC  
TTGCATCTGAATATGTTCCATCAGGCATAGACCGTCCAGGATGAACATTTAATTGTGAAC  
TGATAGCGTCATTACGAATAGTAATAGTTGGGGCAGGAGCATCCCCTCCATACGGCGAT  
45 AAGTTGTATTATAACTTTTAAATTTTTTCAACATTTTTTTCTTTGGATAATGTTCTATAT  
TATCAAAAGCAGATCGTCTGTTGGCGTATTTTTTAGCCATATAATGTGCTCCGGAGCAT  
GTGTACGTGCAAAATGCCATTTACATTAGACTTTTGTCCAGACTCAATACTAGGCAAAA  
AACTAATAGCATCACGAACAGAAATGGTTTTTGTAACTTTTTCCGGCATTCCCCAAATAG  
TTGAATGTTTATTATCATACGAATAATAGCTCGTTTACGATGTTGTGCAACACCATAATCGG  
50 CAGAATCAAAAATATGAGTTTGAATATAATATTCGCAACCAAAATAAATCTTGCAAAATTA  
CTTCTACTGTTTGAATGTCCCTTATAAGGTAACCTAATTTTTTAAAAAAATGGAACAT  
TTTCAATCAAAACAAAAGTTGGGCGTTTTAATAAAATAAATTCGATTACTCTGAATATTA  
AATGATTACGTTTATCATTAGCCATCTCTGAATGTTACGATTTTTCCCTGCAACACTCA  
TGCCTTGACAAGGAGGAGAAGCAATAAAAAATCTAATCGATTTCGGCAGCTCTGTATTA  
55 AATTTTGAAACACTTCCTCATGAAGTATATCACCTATAATCATTTTACTTTCGGGATATA  
GAGCTTTATATAAATTAGCACGTTCTGGCACCAATTCATTTGCAGCTATAATCTTAATAC  
CCGCATTATGCAAGTAGGTTTCTGCAATCCCTGCACTCGAAAACAAAGAGCCCTATCA

TCATAGAACCAAACCCAAATTAACATATAATCTCTACAAAGCAATAAATTATGCCTCTT  
TAAACAAAATTAGGAATGTAATTTACAAACAAAATATCAAATGTTTTATATCTTACATTT  
GAATTTTCTTAAGCAGCCTGAAAACCAAGAGTAGGCTGCTTTTCCATATTCAGGCAGTCT  
GCACGATCATTTTCGCAAACCTGCTTCAAAAAGTTCAAATCATTATCGAAGAACAGGCGCAA  
5 GTCGTTACGTTGTAAACGCAGCATAGCGAAGCGGTCGAGACCAATACCAAAGGCGAAACC  
GGTATATTTTTTTCAGGGTCGATATTGACGTTTTTCAACACGTTAGGATGTACCATACCGCA  
ACCGCCTACTTCCAGCCATTTGCCGTTTTTCGCCCATAATGTGCGATTTTCGGCAGACGGTTC  
GGTGAACGGGAAGAAAGACGGGCGGAAACGTACTTGCAAATCATCGCGTTCAAAGAAGCG  
ACGGATAAAATCCGTGAACACTGCTTTTAAGTCGGCAAAAGTTACGCCCTCTTCTACCCA  
10 CAAACCTTCCGCCTGATGGAACATAGGCGAGTGCGTGGCATCGCTGTCCACACGGTAAAC  
GCGGCCGGGGCGATAATGCGGATGGGCGGCTCTTTTTATCGAGCATATAGCGGATTTG  
AATCGGGGAAGTGTGCGTACGCAAAACATCGCCGTTTTCAACGTAAAACGTATCCTGCAT  
CGCACGGGCAGGATGGTTTGCAGGGATGTTTCAAGGCTTGGAAATTGTGAAATCGTCTTC  
GATTTACAGGCCCGTCCGCCACTTCGAAACCCATTCCGTGAAAGAGTTTCGACCACAGTTG  
15 CAAGGTACAGGTTACGGGATGAGGCTGCCGCCTTCCTGAGCGCGTCCGGGCAGGGTAAT  
ATCGAGGGCTTCGGCGGCAAGTCGGGCTTGCAGCTTGACTTCGTTGAGGGCTTCGCGTTT  
GGCATTAAAAGCCGTCTGAAACCGGTTTTTGCATTCAATTGATATGCGCACCTATGGTTTT  
GCGCTCTTCAGGCGACATTTGCCCCAAGTTTTTCAAGTCCGGTCAACTCGCCGGTTTT  
ACCAAGATAACGGGCTTTGATTTGTTCTAGAGCGTTGAAGTCTTGGCGAGCTTCTACTGC  
20 GGCAATGCCTTCTGCAACGATGCGGTTTACATTTTCCATAATATCAAGTCTGTCAATTAA  
TGATATACCACCTGAAACAACGAGGCGCCTGTATAGCCTGACATATCAGACTCTTCAGA  
CGACCTTATTTTCTTCAGGTCAATCCATTGGATAAATTTCTGTATAGTGGATTAAATT  
TAAACCAGTACGGCGTTGCCCTGCCCTTGGCGTACTATCTGTACTGTCTGCGGCTTCGTCG  
CCTTGTCTGATTTAAATTTAATCCACTATATTTTAAACGCAAATTTATTTAAAAAATAG  
25 ACTTTAAAGAAAGAAAATCAATCACATAGAATTTCTGCAAACAAAGAAAAAAGGAAGCCG  
CAGCTTCCTTTTCAATTTTTTGGATTAAAGCAGCCAAAGCAGCTTTGGCTTTTTCAACCAA  
TTGTGCAAAAGCGGCTTTATCGAACACGGCCAAATCAGCCAATACTTTGCGGTGATTTT  
AATAGAGGCGCGTTTTACAGCCGTTTATAAATTTGCTGTAAGACAACCCGTTTTACGCGT  
ACCTGCATTGATACGGACAATCCACAATTGACGGAATTGGCGTTTGGCGTTGGCGGCGGTC  
30 ACGGTACGCGTATTGACCGGCTTTCATTACCGCCTGCTTGGCAACGCGGTAAACGTTTTT  
ACGACGGCCGCGGTAGCCTTTGGCTAACGCGAAGATTTTTTGGTGACGGGCACGAGCGGT  
AACACCGCGTTTTACGCGTGGCATATTTCTAAACTCCTTAAGCGTAGGGTAACATTTTAGC  
AACAGAAGCCAAATCGCGATCATTTACCATAGAGGTACCGCGCAGTTGGCGTTTGTTTTT  
GGTGGTCTTTTTAGTCAAGATGTGGCGTTTGAACGCATGAGCGCGTTTCACACCGCCGTT  
35 ACCCAGTACTTTAAAGCGTTTTTTCGCGCTAGACTTGTTTTTCAATTTAGGCATGGGAAA  
ACTCCATTTCGTTTACGATAAAGCATTAGGGGTTTTTAAACATCGGTTTCAAACACTTG  
AACCACAAATGACACGGTTTTTTTGGCGCAATTGAAAACCTTACTCCGAAGCGGCAATCGGA  
GTAAGCGGAGAATTATAGCTTTATTTTTTCTTCGGCGCAATCATCATCACCATTGGCGA  
CCTTCCATTTTGGGAAAGGACTCGATTTGCGCCACTTCAGCCAAATCTTCTTTACACGT  
40 TCCAAAAGTTGCGCGCCGAGTTGCTGGTGAGCCATTTACGGCCGCGGAAACGCAATGTC  
ACTTTGACTTTATCGCCGTCGGCAAGGAAGCGGTTAATGTTGCGCATCTTGATTTGATAA  
TCGCCCTCATCCGTACCCGGACGGAATTTGATTTCTTGATTTGCACCTTGCTTTTGGTT  
TTTCTTGGCTTCGTCGCTTCTTGGCCTGCTGGTATTTGTATTTACCGTAATCCATCAG  
TTTGACACAGGCGTTTTAGCAGTTGGGAAATCTCTACCAAATCGACATCCTGCCCTTC  
45 GGCCATAGCCAAAGCTTCACGAACGAAACGACACCAAGCTGTTTCGCCTGACTCACTGAT  
TAAACGCACCTTCTTTGGCGGTAATTTCCGCCGTTGATTCGTGCTTCGCGTTCTTGAGCGAT  
GATGAATACTCCTATAAAAAATTAATGATTGACGAGGGCATCAGTGATTTCTTGCTGCAAT  
TGCGCAATGAAATCATCCAAATCCAAAGAACCCAAATCTTCTGCTTTGCGGCGTACCGCC  
ACTTTGTTTTCTGCTTCTCCTTATCGCGGACAACGATTTGATAAGGGAAACGGTATTGG  
50 CTGTTGTGCGGATTTTGTAAACCGATTTTTTTCGTTACGCAAATCCAACTCGGCGCGGAAT  
CCTGCCGCTGCAATTTGGCAGCCACTTCCCGACAATAATCTGCCTGATTTTCGGTAATA  
TTCATAATTACCAATTGAACGGGAGCCAACCATAACGGGAATGAGCCTGCATGGTTCTCA  
ATCAGAATGCCGATAAACCGCTCCAAAGAACCTAAATGGGCGGATGCAACATAACAGGA  
CGCGCACGGTCGTTGTTTTTCAAGTTACATATTCGGCATTCAAACGCTCCGGCAATACGAAA  
55 TCCAGTTGTAATGTACCGCATTGCCAAGAACGACCCAAGGCATCTCTGACATGATATTCG  
ATTTTAGGCCCGTAAACGCACCTCGCCCGGCAATTCGCCCCATTCACGCGCGAGGCA  
GTCAATGCCTCGCGCAAACCTGCTCTGCCTTATCCACACGTCATCTGAACCTGCGCGT

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TTTTCAGGGCGAAGAGAAAGCTTGACGGATACATCATGGAAACCGAACTGTTTGTAGATG  
 CGAATCAACAATTTCATTGAACGCACGAGCCTCGCTGACGATTTGATCTTCGGTACAGAAA  
 ATATGCGCATCATCCTGCACAAAACCGCGAACC CGCATCAGACCGTGCAGCGCACCGCTC  
 5 GGCTCATTGCGGTGGCAAGAACCGAATTCGCCAAACGCATCGGCAAATCTCGATACGAA  
 CGCAAACCGTTGTTAAAAATTTGAACATGACCCGGACAGTTCATCGGTTTAACCGCATAT  
 TCGCGTTTTTCCGAACTGGTTACGAACATATTATCTTTGTAGTTGTCCCAATGGCCGGAT  
 TTTTCCCAAAAGTTTTATCCATGATTTGAGGCGTTTTGACCTCTTTATAACCGGCGGCG  
 TTCAGCTCTTTACGCATATGCTGTTCAATCACTTGCCACAAAGCCCAGCCTTTAGGATGC  
 CAAAACACCATGCCCCGGCGCTTCGTCTTGACAGTGGAAACAGATCCAATTGCTTGCCAAGT  
 10 TTGCGGTGGTCGCGCTTTTCGGCTTCTTCGATACGTTGAATATAGGCTTTTAATTGCTCT  
 TTTGTGCGCCCAAGCCGTACCGTATATGCGTTGCAGCATTTTCATTATTGCTGTGCGCCGCG  
 CAGTATGCGCCCGCCAACCTTGGTCAGTTTGAAGTTTTTCAGGAAACGGGTATTTCGGAACG  
 TGCGGGCCGCGGCACATATCGACATATTCCTGGTGATGATACATCCCATCGCTTCCACT  
 TCGGGCATATCGTCAATCAGGCGCAGTTTGTATTCTTCGCCGCGCTCTTGAAAAATTTTA  
 15 ATCGCCTCCGCACGCGGAGTCATGATTTTGACCACATCATAGTCTTGGGCAATCAATTCT  
 TTCATACGCGCTTCAATGGCGGCAACATCTTCGGTGTAACCGGTTTTTCCGTGGCGATG  
 TCGTAATAAAAGCCCTCTTCAATGACGGGGCCGATAACCATTTTTGCAATTAGGATAGAGT  
 TGCTTGACGGCATGCCCGACAAGATGCGCGCAGGAATGGCGGATGATTCGATGCCTTCC  
 TGATCTTTTCGGAGTAATGATTTGAACAGCAGAATCTTCAACAATCGGGTCGCACGCATCG  
 20 ACCAATTTGCGCTTTACCCGCGCTGCCACCGTCGCTTCGCCAAACCGGCACCGATAGAC  
 GCAGCAATTTGAGCCACGGTAACGGGGGATTGCTATTGGCGGACTGAGCCGTCCGCAAG  
 GTAATATTCAACATCAAACGCTCCGAAAGATTAAAAATAACGGCATAAATGCCGTTATG  
 GGAATTTGGTAGGCACGATTGGATTGCAACCAACGACCCCAACCATGTCAAGGTGGTGCT  
 CTAACCAACTGAGCTACGTGCCTTCAAAGAATTTTTGCATTTTATCGGGTCGTTTTAATT  
 25 TTTGCAAGAGGTATGTGCGTTTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 286>:

**gnm\_286**

GCACTTCAGACGGCATTATATGCCTTGCCCTCCATGCCGTGATGTTTCGATGGCAAAACCG  
 30 CTTTCGGCGGTAGGCGGTAAAGCGTTCGCGCGCGTCGGCGAGCTCTTCCAAGCTGTTGCCG  
 ACGATTTCCAAAACGCGCGCGGGCAAGACCGGAGCGGTGTTCCAAAACCGTCGGACAGG  
 TTCAAACCGGTTCATGCCCTTCGGGAATTCGGGGCAGATTGCCGCCGCAgGCAAGCAGGACG  
 GATGGTTTCAGACGGCATGGCTTCTTCCGTTTCCCAAATTTTCGTGCGGAATGAAACTCTCG  
 GCCTCGTATTGCCAAAGCATTTTGTCCAATTCCTGAAGCTGCCCGAACGAATCGGACCAC  
 35 ACCAGTATCCTGCCGCCGTCCCGAATCGCACGGGCAATCAGGCGGCAGGTGAAAATCGGA  
 ACTTGGGCAACGTGCGTGTAAGGTGGCTTTCGGCATATTGTTTGAACATTTGGCAGGA  
 TAATGCCGTCTGAAAGGCTTCAGACGGCATTTGTGGGAAAATTAAAGATTCCGCAGATAGT  
 TCAGCAGCAAGGGAACGGGACGGCCGGTCGCACCTTTTTCCGCACCGGATTTCCACGCCG  
 TACCCGCGATGTCAAGGTGTGCCCATGGATAGTCTTCGGTAAAGTAGGATAGGAATGTTG  
 40 CGGCGGTAATCGTGCCCGCGCCGGCGTCCGATGTTTGAATGTGGCAAAGTTGGATT  
 TGAGTTGGTCTTTGTAGGTCTCAAAGAGCGGCAGTTGCCATGCTTTGTGCTCCACGTTGT  
 AgGAAGCGGCAAGCAGGCTGTGATCAAATCCTGATTGTTGCCCATCACGCCGCTGACAT  
 CGTGCCCAAGGCAACAATACACGCGCCGGTCAGGGTGGCGACGTGATGACGGCTTTGG  
 GTTTGAACATGCTCGGCGTAAGTGAGCGCGTCGCACAAAATCAGACGGCCTTCGGCATCGG  
 45 TGTTCAACACTTCGATGGTCAGCCCTTTCATACTTTTACGACATCGCCCGGTTTGTGTTG  
 CCGCGCCGGAAGGCATATTTTACAAGTGGCGACGACGGCAATCAGGTTAATCGGCAGTT  
 GCAGTTTGACGGCGGCGCAGAAGGTGCTGATGACGGTTGCCGCTCCGCACATATCAAAC  
 TCATTTCTGTCATGTTTCAGGCCGGGCTTGAGGGAGATGCCGCCGGTGTGCAAGGTAATGC  
 CTTTGCCGACCAATACCACAGGCGCGGCTTCTTTGTGCGGTGCACCGAAATAGCTCAGTT  
 50 CGACCAAATAGGGGGCTTCCGCGCTGCCCTTTGGCGACCGACCAAAACGAACCCATGTTTT  
 CTTTGATGTAGTCTTTTTTCGATGATTTTGGCGTGCGCGCCAGTTTTTCGGCTTCGGCTT  
 TGGCGGTGCGCGCTAAAAATTCGGGCGTGCAATTCGTTGGGCGCGGCGTTGCCAAGTCGC  
 GGCAGAGGCTTTGTCCGTAAACTTGCGCTTCGGCGACGCGCAAGGCTTCTTTGACGGCGG



CTTCGTGCGCGGTATGGAACACGGCAGTTTCAAATTTGGCGGGCTTGGCTTCTTTTTTGT  
AGCGGTGCGAAACGGTAGGCGGCATTGCGGAACGCAATCGCAAACGCTTCGGCAACGGCTG  
CAGCCTGCGCTTCTTCAAAGACGTGAACGTCCACATTGACCGTTTCCTGATTTTGC GCC  
ATTTGGCGGCTTCGGCGGCGGCCTTGTTCAATGCGGCGCGGCCGGTGCTTTTCAGACAGC  
5 ATACGGCAACAGCCTGCAAACCGTTGCCTGTGCGGATTTTGTGTGCGCAAAATTTGAC  
CTTCTTCAAGCGAAGACAAAAGGGCAAGGACGGTCGGGTGCTCAGTTGCGATGCTTCGG  
TGCAGACAAATAACTGTGCGCCTGCCTGCTGTTCTGCAAGATTTTCGGTTTTTGTGCTAA  
ATTCCACGTTTATTCTCCTGATTGAGACGGTTGTGCGTAGTTTTTCGGACGGCCTTTCGCT  
CAAAGACCGTCTGAAGACGGCTGGCAGGATTGTACCCCATTTGAAGCACCGTCTGAAAC  
10 CTGCGCGGACAATCCGCCGTCGCCGAACCGCTTACCGCCCCCTGACCGCGATTCTATG  
ATTTATCAAAGAAACCTCATCAAAGAACTCTCTTTTACCGCCGTCGGCATTTCGTCGTC  
CTCTTGGCGGTATTGGTCTCCACGCAGGCAATCAACCTGCTCGGCCGTCGCCCGGACGGG  
CGTGTGCGCATCGATGCCGTGTTGGCATTGGTCGGCTTCTGGGTCATCGGTATGACGCCG  
CTTTTGCTGGTGTTGACCGCATTTATCAGTACGTTGACCGTGTTGACCCGCTACTGGCGC  
15 GACAGCGAAATGTGGTCTGGCTATCCTGCGGATTGGCATTGAAACAATGGATACGCCCG  
GTGATGCAGTTTGGCGTGCCGTTTGGCGTTTGGGTGCGGTGCGGTGCGGTGCGGTGCGGT  
CCGTGGGCGAGAGTACGCGCGCGAATACGCTGAAATCCTGAAGCAGAAGCAGGAATTG  
TCTTTGGTGGAGGCGAGGCGAGTTCAACAGTTTGGGCAAGCGCAACGGCAGGGTTATTTT  
GTCGAAACCTTCGATACCGAATCCGGCATCATGAAAAACCTGTTCTGCGCGAACAGGAC  
20 AAAAAACGGCGCGGACAACATCATCTTCGCCAAAGAAGGTAACCTCTCGCTGAACGACAAC  
AAACGCACGCTCGAATTGCGCCACGGCTACCGTTACAGCGGCACGCCCGGACGCGCCGAC  
TACAATCAGGTTTCTTCCAAAACTCAACCTGATTATCAGCACCACGCCCAAACCTCATC  
GACCCCGTTTTCCACCGCCGTACCATTCGACCGCCCAACTGATTGGCAGCAGCAACCCG  
CAACATCAGGCGGAATTGATGTGGCGCATCTCGCTGACCGTCAGCGTCTCCTACTCTGC  
25 CTGCTTGCCGTGCCGTTTCTCTATTTCAACCCGCGCAGCGGACATACCTACAATATCTTG  
ATTGCCATCGGTTTGTAAAAATTTACCAAAACGGGCTGACCCTGCTTTTTGAAGCCGTG  
GAAGACGGCAAAATCCATTTTTGGCTCGGACTGCTGCCTATGCACATTATCATGTTTGCC  
GTTGCACTCATCTGTTGCGCGTCCGCAGTATGCCAGCCAGCCCTTCTGGCAGGCGGTT  
GGCAAAAGTCTGACATTGAAAGGCGGAAAAATGAACCTGATTTACGTTACATCATCCGTC  
30 AAATCCTGTACGAAACCGGCAACCTCGGCAAGGCAGTTACGGCATAATGGGAAATGCTGG  
GCTACACCGCCCTCAAAATGCCCGCCGCGCTACGAACTGATTCCCTCGCCGTCTTAA  
TCGGCGGACTGGTCTCCCTCAGCCAGCTTGCCGCGGCGAGCGAACTGACCGTCATCAAAG  
CCAGCGGCATGAGCACCAAAAAGCTGCTGTTGATTCTGTGCGAGTTTCGGTTTTATTTTG  
35 CTATTGCCACCGTCGCGCTCGGCGAATGGGTTGCGCCACACTGAGCCAAAAAGCCGAAA  
ACATCAAAGCCCGCCCATCAACGGCAAAATCAGCACGGCAATACCGGCCTTTGGCTGA  
AAGAAAAAACAGCATTATCAATGTGCGCGAAATGTTGCCCGACCATACGCTTTTGGGCA  
TCAAATTTGGGCGCGCAACGATAAAAACGAATTGGCAGAGGCAGTGAAGCCGATTCCG  
CCGTTTTGAACAGCGACGGCAGTTGGCAGTTGAAAAACATCCGCCGACGACGCTTGGCG  
40 AAGACAAAGTCGAGGTCTCTATTGCGGCTGAAGAAAACTGGCCGATTTCCGTCAAACGCA  
ACCTGATGGACGTATTGCTCGTCAAACCCGACCAATGTCCGTGCGCGAACTGACCACCT  
ACATCCGCCACCTCCAAAACAACAGCCAAAACACCCGAATCTACGCCATCGCATGGTGGC  
GCAAATTGGTTTACCCCGCCGCGAGCCTGGGTGATGGCGCTCGTCGCCCTTTGCCTTTACCC  
CGCAAACCACCCGCCACGGCAATATGGGCTTAAACTCTTCGGCGGCATCTGTCTCGGAT  
45 TGCTGTTCCACCTTGCCGACGGCTCTTCGGGTTTACCAGCCAACTCTACGGCATCCCGC  
CCTTCCTCGCCGCGCATACCTACCATAGCCTTCGCCTTGCTCGCCGTTTGGCTGATAC  
GCAAACAGGAAAAACGTTGAACCAATGCCGTCTGAACCTCTCTCAGACGGCATTGTTTT  
TCATTGACACATTCCACAGACAGATAGCCGTTCCCTATTACATTACCTGTATAACAGT  
TCCATTTTTGTAAAACTAGTCTATGATAGCGGTACAAATATTGTTTACAATATTTAACG  
50 CAAATCATTTGCAACCCGACAAAAGAAAAACAGAAAAAGGAACAAAGAGATGTTAGAAGC  
CTATCGTAAAGCCGCCGCGGAGCGCGCCGCCCTCGGCATT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 287>:

**gnm\_287**

CGGCAGTGGACAAGTGAAGTGTTCAGTCTCTATTTCCAGAACGATGGCTCAGGTGCTTACCG  
 TATCGATGAGATTTCATTTTCGATAACGGCAAAGTACTGGATGTTGCCACTGTCAAAGAACT  
 GGTACAGCAATCCACCGACGGTTCGGACAGATTGTATGCCTACCAATCCGGAAATACCTT  
 5 AAATGGCGGATTGGGCGATGACTATCTGTACGGTGGCGACGGGGATGACCTGCTGAATGG  
 TGATGCAGGCAACGACAGTATCTACAGTGGCAATGGCAATGATACGCTCGATGGAGGAGA  
 AGGCAACGACGCCCTGTACGGCTATAATGGTAACGATGCACTGAATGGTGGCGAAGGCAA  
 TGATCATTTGAACGGCGAAGACGGTAACGACACTCTAATCGGCGGTGCAGGCAATGATTA  
 CTTGGAGGGCGGCAGCGGTTCGGATACTTATGTCTTCGGCAAAGGCTTCGGTCAGGATGC  
 10 GGTCTATAATTACGACTACGCTACCGGACGCAAAGACATCATCCGCTTTACCGACGGTAT  
 TACAGCCGATATGCTGACTTTTACCCGAGAGGGCAACCATCTTCTTATCAAGGCAAAAGA  
 CGGCAGTGGACAAGTGAAGTGTTCAGTCTCTATTTCCAGAACGATGGCTCAGGTGCTTACCG  
 TATCGATGAGATTTCATTTTCGATAACGGCAAAGTACTGGATGTTGCCACTGTCAAAGAACT  
 GGTACAGCAATCCACCGACGGTTCGGACAGATTGTATGCCTACCAATCCGGAAATACCTT  
 15 AAATGGCGGATTGGGCGATGACTATCTGTACGGTGGCGACGGGGATGACCTGCTGAATGG  
 TGATGCAGGCAACGACAGTATCTACAGTGGCAATGGCAATGATACGCTCGATGGAGGAGA  
 AGGCAACGACGCCCTGTACGGCTATAATGGTAACGATGCACTGAATGGTGGCGAAGGCAA  
 TGATCATTTGAACGGCGAAGACGGTAACGACACTCTGATCGGCGGTGCAGGCAATGATTA  
 CTTGGAGGGCGGCAGCGGTTCGGATACTTATGTCTTCGGCGAAGGCTTCGGTCAGGATAAC  
 20 GGTCTATAATTACCATGTGGATAAAACTCTGACACTATGCACTTTAAAGGATTTAAAGC  
 AGCAGATGTTTCAATTTTATCCGTTCCGGAAGTGATTTGGTGCTTAGCGCTTCTGAACAAGA  
 CAACGTACGTATTTCCGGATTTTCTATGGTGAACCATCGTGTAGATACATTTGTCTT  
 TGATGATGCAGCTATCAGTAATCCAGATTTTGCCAAGTATATTAATGCTGGCAATAATTT  
 GGTACAGTCTATGTCTGTGTTTCGGTTCTAATACTGCTGCGACAGGAGGAAATGTGGATGC  
 25 CAATATACAATCCGTACAGCAGCCGTTATTGGTAACGCCATCTGCATAAGGAGCCTAATT  
 ACATTCATGGCTTAACTGAAAAACAGCAATCAAGTTTATTTTGATTGCTGTTTTTCTTA  
 ATATTGGGATAAGGGTCGTATTTTAATTAACCTTAATCGGTGCACTTCTAGCAATATAGT  
 GGATTACAAAAACCAGTACAGCGTTGCCTCGCCTTACCGTACTATCTGTACTGTCTGCG  
 GCTTCGTGCGCTTGTCTGATTTTTGTTAATCCACTATAATTTTCAGACGGCCTTTTGCC  
 30 TTTTCAAATTCAAACCAATCAAACGGTTTTATTGCTTCATCGCGTTGGTCAAGGCTTTGA  
 TGTTGTGGCGGTACATTCGATGTAGGTGTCTGCGGGCGCGTTGCCGAGTGCCTCGGAAT  
 ACAGTTTGGCGCTGACGTTGACACCGGTTTCTTTGGCGATACGGTCAACCATACGGGTGT  
 CCTTGATGTTTTCGGTAAAGACGGCTTTGATGCCTTCGCGTTTGATTGTGCGGATGATGG  
 CGGCGACTTGTTTTGGCCGAAGGCTCGGCTTCGCTGCTCACGCCCTTCGGGGGCGATGAATT  
 35 CGATATGGTAACGTTTGCCCATATAGGAAAAGGCATCGTGCCCGTCAAGGACTTTGCGTT  
 TGGCAGCAGGGACGGCATTAATGCGGCTTGTGCGTCTGCTGTGCAGTTTTTTGAGCTGCA  
 TTTGGTAGTTGCCCAAGCGTTGTTGATAATAAACTTTGCCTTCGGGATCGGCCTTTATCA  
 GGGCTTTGGCAACGTTTTGGGCATAGGCGGACATAAGGACGGGGTTCGTTCCAGACGTGCG  
 GGTCAATATCGCCGTGGTCATGGTGGTGTCTTTCGTGGTCATGATCGTGGTTCGTGATGGT  
 40 GTCCGCCTTCTCTTCGGCTTTGAGGGGTTGGATGCCTTTGGTCGCTTCGGTATAGGATA  
 CTTTGCTTTGTTTGACGGCGCGTTGCACATCGGCAGCTTCAAGTCTTAAGCCGTTGAGCA  
 GGACGAGTTTTGCACTGCGGATTTTTTAAATGTGCCACTGGTCATATGATAGGCGTGCG  
 TATCTTGTTGGCTCCGACCAAACCTTTGTATGGATACGCGCTCTCCGCCGATTTGTTTGG  
 CTACGTGCGCTAAAATGCTGAAGCTGGTTACAACCGGCAGGGGGCGGCAGTTGCGGAGG  
 45 CGGTCAGCAATGCGGCAATAAGGGTGAGTTTGAAGGTGTTTCATAACTGTTCTCCTGTGAT  
 ATAACGTAACATCTGTTATGGTAAAACAAGCCGCTGTTTGTCAAGCGGCTTCGGGGGT  
 CAGGTGGTGTGGCGGTGGTGGCTTTTGAAGCATTTGGCCAGAATGCCGCTTCTTTGCCG  
 AGTATGACGCAAAGACATATCGGACGCTGCACCAGCGGATGAT

50 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 288>:

**GNMCS11F gnm\_288**

CCGGCACCCACGCCTTACGACACCGCCACCTCGAAGTGATGTTTCGACCAATGTTTCAGCC

-714-

AGATTGACTATTTGCGCCGCAAAGGGACGGGCGCCGGCTCCGGTTCGTGCGTCAAAGTCG  
CCCACCTGCTCGAACGGCTCCGGCAGACCGTAGACCGTCTGAAGCTGCTCACCGACATCC  
AAACCGGCGCGCGCAACAGCAACCGCTGACCATCGCGCTGATGAACTCCCTCATCTACG  
CGGCGGTGCAACAATACAGCACCCGCCACCTGCGCCGCGCAGCATCCGTATGCTCGCCCG  
5 CAGCATTACCGAAAAACAAAAGCCACCACGGCGAACAACACTACATCACCCGCAACCGCAAAGA  
ATATTTCAAATGTTCTACTCGGCGGCGAGGCGGCGGCATCATCATCGCCCTAATGGCGCT  
GCTCAAAATCCGCATCGGCTCACTCGGCTCAGCCCTTCCTCACTTCCTTGTGCGGCTGG  
GTTCAACTACGGCATCGGCTTTATGATCATCCATATGCTGCACTGCACCGTCGCCACCAA  
GCAGCCCGCATGACTGCCGCCAGCAGGCAATCGGAGTAAAAAATGAACCTTGATTTAAC  
10 CGCGCAAAAAGTCCGTCTTTCTTGAAGGATATTCTGTGGGGTATGGGAATAAATA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 289>:

**GNMCS48F gnm\_289**

TGCTGGCAGCAAAGAAATCTGCACGATTGTCAATGGTGTGAAATACTTGTCAAATCTTG  
15 TAGATGCCCCCTTGTGAGTTATATAAATAGCCAAAACTTCTTTGGCAACCCGTGATACAT  
CCGAAGGGATATACTTCCACGCAGCAGGCATGGCAATATATTTAATAGATATATTAATGC  
CGTTTCTGCAACCATCGCGCAATGGGTTCCTAGAATAGACTTGTGGAAGTTCCGTATCAA  
TTACTTTGCGAAATTGTTTCATCCGTTTGTATGGCATTACTTTTCCATCGTAGTAGTGC  
AAGTT

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 290>:

**gnm\_290**

GTCGACTCTAGAGGATCCCTGGGATTGAGTTTAGACCAGACTGCTCATTATACTTTATG  
CAGGTTTGTAAATATTTGGCAAACCTTCATAAATTATGCCTTGTAATCAAGTCATCAAATA  
25 AGCATGTAAATAACTACTATAGAAATTAAATTACAAAAATATTATGTATTCTTTTGTGTA  
CAAAGGGTACCGAGCTCGAATTCGTAATCATGGTCATAGCTGTTTCTGAGTGAAATTGT  
TATCCGCTCACAATTCCACACAACATACGAGCCGGAAGCATAAAGTGTAAGCCTGGGGT  
GCCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTCACTGCCCGCTTTCCAGTCG  
GGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAGAGGCGGTTTG  
30 CGTATTGGGCGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 291>:

**GNMCS78F gnm\_291**

CCCGCGCAGGCGGCAATCTATCGGAAATGACTGAAACCTCGAGATTCTAGATTCCCACTT  
35 TCGTGGGAATGACGGTTTCAGTTGCGTTCCAACAACACCGCAATCTCGAAATCCGTCATTC  
CCGCGCAGGCGGAAATCCAGACCTCCGACGCGGCGGGAATCTATCGGAAATGACTGAAAC  
CTCGAGATTCTAGATTCCCACTTTTCGTGGGAATGACGGTTTCAGTTGCGTTCCAACAACAC  
CGCAATCTCGAAATCCGTCATTCCACACAGGCGGGAATCTAGACTCCTGACGCGGCGGG  
AATCTATCGGAAATGACTGAAACCCCGAGATTCTAGATTCCCACTTTTCGTGGGAATGACG  
40 GTTCAGTTGCGTTCCGACAACACCGTAATCTCGAAATCCGTCATTTGCGTACAGGCGGGA  
ATCCAGACCTCTGACGCGGCGGGACTCTATTGGAAATGACTGAAACCGCGAGATTCTAGA  
TTCCCGGTTTTGTGGGAATGGCGGCTCACTTGCATTCCGACAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 292>:

**GNMCV37R gnm\_292**

TCGGCATTTTTTTATCCGTTTGGGGGTAACCTGTTTGGAAAGCTGCAACTTCATAAATA  
CAGGATTACATTTAAGTTTGGGTAACCTTTTTAAAAAATGCGTGATGACTTTTGCATT  
TTTAAGGCGTTTTTGGGGTAATTGCGTAAAAGTTACCCCAAAGTTACCCCAATAATGG  
5 CGAAAACCTCAAGCATACGCCAGCATCCTGCAACACAAAAAGCCTTGAAACTGTTGAAGT  
TCAAGGCTTTTTTGTGTTGCAGGATCTGCTGTCAATAGGGTATGGTGGAGGCGGGGGTA  
TCGAAACCCCGTCCGATATTCCTCTACAAAGCGTTCTACATACTTAGTTGTGTCTATATG  
AGAATCTTATTTCCATCATGCCGACCAACAGGCTTATGGATACCAGTTACCTTAAGTCT  
T

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 293>:

**GNMCV44F gnm\_293**

GACGGCCAGTTCGCGAAAACGACGGCCAGTGCCAAGCTTGCATGCCTGCAGGTCGACTCT  
AGAGGATCCCGGCGATGGCTTGTGCGAGTTGGGGCAGGATGGGGGCGTTGCGGTGCGGGT  
15 TTTGGCTTAAAAATTGGGTGATGAATTCGGGCACTGGCACGCAGATGCGGCGGATTTGCT  
TGGGCAGTGCTTTGATTTGCAACTGGATTTTTTCGCGTATCATGCCGGGCACCAGCCATT  
CGTGCGACGGCGCGTGCAGGCGGTTGAGGACGGTCAGCGGCACGGTCATGGTCACGCCGT  
CTAGCGGATGGTGGCGCTCGAAGCGGTAGGAAAGTTTGAATTTGCCGTCTGCGGTTTGCC  
AGAATTTGGGGAACGTGTTCTTCGGTAATGTGTGCGGCGGCGTGTTCATCAGATCG

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 294>:

**gnm\_294**

GCCCCACCAACCTGTGAGTCTCCTTGCCCTGCTGGTGTGTGTGGCCGCCACTCACCCATG  
CATCATGACCCGTGGGATCTCAGTAGCCAGCGTGCACTGATTCTGCGCACTTATCAGTGC  
25 CTTTCGTACACTTTGCCCCACTTCCACTTCGGCAGTAATCTGCTCGATGCGTTTTTTTCGCCG  
CATCGCCGCTTCTTGAGTGGTTGCGGCAATGGTAATCGTACCGTCTTCGGCAATATTGA  
TTTCCGTACCGGTTTCAGCGGTAATCGAACGGATGGTTTCACCGCCCTTACCGATAACT  
CGCGGATTTTGTCTTGTTGATTTTCATCGTGAACAAGCGTGGCGCGTGTGCGGACAGCT  
CTTGCGGGCCCGCAACGGCGGCTTTTCATCTGATCCAAGATGTGCAGACGCGCTTCTTTGG  
30 CCTGTGCCAAAGCGATTTGCATAATTTCTTTGGTAATGCCTTGGATTTTGATGTCCATTT  
GCAGCGCGGTAACGCCTTCGGTCGTACCGGCCACTTTAAAGTCCATATCGCCCAAGTGGT  
CTTCGTGCGCCAAAATGTGCGTCAGGACGGCAAATTTGTTGCCTTCCAGAATCAGACCCA  
TCGCGATACCGGCAACGTGTGCTTTCAAAGGCACGCCGGCAGACAGCAGGCTCAGGCAGC  
CGCCGCAGACGGAAGCCATAGAGGAAGACCGTGGATTCCGGTAATTTCCGGAGACCACGC  
35 GCATGGTGTAGCTGAAATCTTCAGGTTTCGGCAATACGGCCAACAATGCACGTTTAGCCA  
AACGGCCGTGACCGATTTACGGCGTTTCGGTGCGCCCATGCGGCCCACTTCGCCGGTAG  
AGTACGGCGGAAAGTTGTAGTGCAGCATAAAGCGGTGCGTGTATTGCGCGGACAGCGCGT  
CGATGATTTGCTCGTCGCGCAAGTACCCAAAGTTGCAACGGCCAAAGCTTGGGTTTCGC  
CACGGGTAAACAATGCAGAACCGTGCCTGCGCGGCAATACGCTGGTTTGGATGTTTCAGCG  
40 GACGGACGGTGCGGGTGTGCGGCCGTCGATGCGCGGTTGGCCATCCAAAATTTGGCTGC  
GGACGACATCGCTTCCAAGTGTGTTGAAAATGCCTTTGATTTGCTTGGCTGCCAAAGTGT  
CGGTTTCTTCGGTAATCAAGGCTTCTTTTACCGCACTCCAAGCTTCGTCCAATTTGGCAG  
AACGCGCTTGTTTTTGACGGATTTTGAACGCTTCTTTAATGGTTTCGCCGGCAATCCCGC  
GGACTTTGGCAACCAGTTCCTCATTTGGTTTCAGGTGCTTTCCAATCCCAAAGTTCCGGAT  
45 TGACTTCGTGCGCAAATTCATTGATTGATGATGATGCAACCTGCATTTGATCGTGGCCGT  
AAACCACCGCGCCAGCATCACGTCCTCGGGCAGGATTTTGGCTTCGGATTCCACCATCA  
ACACGGCTTTTGAAGTACCGGCGACCACCAAGTCCAATTGCGATTTGCGCAATTCCGGCTT  
TAGTCGGATTCAAACGTACACGCCGTTTACATAACCGACGCGTGCCGCGCCGATCGGGC  
CGGCAAACGGTACGCCGCTCAACACCAGCGCGGCAGATGCACCCAACATTGCAGGAATAT

CAGAATCGATTTTCAGGATCGACGGACACGACCATCGCTACGATTTGGATGTCGTGGTAGA  
AACCTTCAGGGAACAGCGGACGAATCGGACGGTCGATCAGACGGCTGGTCAGGATTTCTT  
TTTCGCTTTGTTTGCCTTCGCGTTTGAAGAAACCGCCGGGAATTTTGCCTGCGGCGTAAG  
TGCGTTCCAAATAATCGACGGTCAGGGGGAAGAAGTCTTGACCTTCTTTCACCTTCTTTGT  
5 TGGTGGTAACGGCAACCAAAACACGGTGTGCCCCATAGAGACTTTAACGGCAGCGGCGG  
CTTGGCGGGCAATTTCCGCCGTTTCCAAAGTAACGGTCTGATTACCGTATTGGAAGGTCT  
TAACGTGTTTGTGCAACATCATTGTTCCCTTTCAAAATACCGCACTGCTAAAACACTAATA  
ATGCACACTAAAATCCGAATGTGCATAGTTAGGGTTTCAGACCGTGCGGCAGGTTATAAA  
CAAGCTTTCAGACGGCATTTCGACGCTGAAAGCAATTGCGGATTATAAAGGCAACCATC  
10 CTTAAAATCCAGTATTGATACAATAAAAAGGCCGTCTGAACCATATTTCTTTCAGACGGC  
CTTCAAACCTTAAAATCAATCCTGAGTCAGCAAAGTCAATGCTTCCCGATACTTCTCGAC  
AGTTTTCTGAATCACATCGGCAGGCACTTTCGGCGCAGGGGCTTTTTTGTTCACACCGCT  
TTGTTCCAGCCAGTCGCGGACGAATTGTTTGTCAAAAGACGGCGGATTGGTGCCGACTTT  
GTATTGGTCGGCAGGCCAAAACGGCTCGAATCGGGAGTCAATACCTCATCCATCAGCGT  
15 CAGCGTACCGTTTTTCATCCAAACCGAATTCAAATTTGGTATCGCAAATAATAATACCGCG  
CGATTTGGCATATTCGCCCGCTTCGGTGTAAGCCGAACCGCCTTGGCGCGCACTTCTTC  
CGCAATTCTTTGCCGATAATGCGTCCGCATTCTTCAAAGCTGATGTTTTTCATCGTGATC  
GCCGACTGCGGCTTTGGTTGAGGGCGTAAAAATCACTTCAGGCAGTTGTTGCGCTTCCTG  
CATACCTTCAGGCAGTTGAATACCGCAAACCGAGCCGGTTTTTTGATAAATCTTTCCAACC  
20 GCTGCCTGCCAGATAACCCAGCACAAATCGCCTCTACTTTCACCGGAGTGAGCTTTTTAGC  
CACGACGGCGCTTTCTCTAAAGCTTTGGCTTCGTTTTTCAGGCAAACATCGTAAACCGT  
TTGACCGGTAAAGTGGTTGGGCATAATATGCGCCAGTTTTTTAAACCAAAAATTGGAAAT  
CTGCGTCAGAATCTCCCTTTGCTCGGAATCGGGTCGTCCAAAATCACATCAAACGCGGA  
CAGGCGGTGCGAAGCGACCATCAGCATACGTTTATCGTTCGATTTTCATATAAATCGCGCAC  
25 TTTTCCAAAATAGATCTTTACCAAACCAATCTCACTCATTTCCGCCCCCTGAAAATAT  
CTTGAAAATACCGACCCGACACCCGACAGGTTGAATCACAAACCGATATCTAGCCGAA  
GTGCGCGCAAAACAATACCCATGGCACAAAAGCCAAACCGTCAACCGTCGGCAAAAATTT  
TGGCACTATAATACCGACAGCAAGTCTACATACTTTTACCAAAGGAAATACCTCAT  
GAGAATCCTATTGACAGGCTCGAAAAGCCAACTGGCACGCTGCCTGCGCGACCGTCTTCC  
30 GGAAGACTGGGAAACCATTTGCGACGGATTCCGCATCCCTAGACATTACCGATGCCGATGC  
CGTCTGCAACATGGTCAAAAGTTTCCAACCCGACGCCATTGTCAACACGCTGCCTATAC  
TGCCGTCGACAAGGCGGAAGGCGATGCGGCAGCGGCATTTGCCGTCAATGCTTCCGCCGT  
TTACAACCTTGCCCTTGGCAGCACATCGCGCCCATGCCGATTTCATCCACATCTCAACCGA  
CTATGTCTTTGACGGTAAAGGGAAAAGACCCTATCAGGAAAGCGACTTTACCAATCCTTC  
35 CAATGTATACGGACAATCCAAAACCGCAGGCGAGCTGCTCGCACTGTCTGCCAATCCCGA  
CAGCCTTATCCTGCGGACTTCTTGGCTGTTTAGCGAATACGGGGACAACCTTTATCCGCAC  
GATGCTGAACCTTGCGCGGGAACGTTCCCGCTGTCCGCCGTCCACAACCAATCGGCTG  
CCCGACCTATGCCGGCGACTTGTCCGCCACCATCATCCGCTGTTGCAGCACTCCAATCC  
CGTTCCGCGGCATTTACCACTACGCCGGCAGCAAATCCGTATCCTGGTACGAATTTGCCCA  
40 ACATATTTTCCAAGCGGCATCGCAACAGCAGACATCCTTCCCGTTCCCGAATTGACTGC  
CGTTTCAGACAAGGAATATCCGACCGCCGCCCCAGGCCCGCATACAGCATTTTGGACTG  
CCGCAAAATCGAAAACGACTTCGGCATCAAAACCGTCAGACTGGCAAAAAGCCCTTGCACA  
GGTCGTTTTCCAAGCTGCTCTGATGCCGCCCGCCCTCTGTTTCCGCCGTCAAGCACCGCC  
TTGGCGGTTTTCTTATATAGTGGATTAAACAAAACAGTACGGCGTTGCCTCGCCTTGCC  
45 GTACTATTTGTACTGTCTGCGGCTTCGTGCGCTTGTCTGATTTTTGTGTAATCCACTATA  
AAATCTACCGATTACACAAACACATATCATCTTTACACAATCATGCTTCCATCAACAGTA  
AAACATGATATGATTGCCAACAATAACATCTCACATAAATTTTCTAATTTTTATTGAAA  
AAATCAATAAATAAGAATCCTCCCAACCGACAAATAAATAAAGAAAGGGTTAATATGCA  
ACATCGAAGAAGACTAGCAATTTACCAAGCATCCAAACGTGCTTCCTTTACCGGCAGGTC  
50 ATCCGCCCGCAAAAACGTAAGAACGTTGATTTGAAAAAATGCCGCTGAAGTCCTGC  
TTCAGACGGCATTTTTTTACCGTTCGAGAACTGTTTCAACCTGTCTCATCCAAAACCC  
AGTGACAGATTTCCTCATCTCCGCCAACAAAACGGGAACCGAGTCATTGTATTTTCTT  
CCAAAACAGGATTTTTCATCCACATCGACCACTTCAGCCCGAACCCGATTTCATCCTGAA  
AAGGTTTGAGTTTCGTGCGCATTTTGTGGCACAAGCTGCAATATTCACGAAACATCAAGG  
55 TCAATTTTCATCCGCGTTTCTTATCTGTCAATTTGCACACGCCAAAGCCTTAGACGCAGC  
AGAATCATGGTCTATTTGGGAAAAACAATGTTTTCGAGGAAGATGATACTCAAGTCCTG  
CCAAAACAGTAAAAATGCCGTCTGAACAGTTCAGACGGCATTTTCGAAAACCGTTTTACG

CTTGAACGTTGATACCCGCCGTAACCGTCGGTTGCGCATTGTGCGCCGTCAGAAACGAAG  
CGGCAAGCTCCCCGCAGCAGCCSCAGCAGCTCGCTACGCCCAATTGCGACTGCAAAATCGC  
CCATTGTGGTCGCGCCGGCGGCATGGTTTCCTTGATTGATGGTCGGTAACGGCATTGC  
AGATGCAGACAAACATTTTGTGCTCCGTGTGTTCTCAAACATATCGTACCGATAGCGGCTT  
5 TTATTATCGTATGCGAATATAAATAAAAAACGGTTTCGCATTGCAAGGTCGGTATACACGGT  
TTGTCTTGGTAATTTTTTATCAAGTTTGCATTTTCGATTGATTTCTTATTAAACCAAAGT  
AGAAGCCTCAGTTTCGGGAATGGTGTTCCTTCACTACACCCTGCAACCATACGTTGGCAA  
CATGGGTATAAATCTGCGTCGTATTCAAATCGGCATGTCCCAACATATCCTGAACCACGC  
GCAAATCCAAGCCGTGCCGCACCAGATGCGTGGCAAAGGCGTGGCGCAGGCTGTGCGGGC  
10 TGATGTGCCCCGATGCCTGCCTGACTTGCATATTCTTTGACAATCATCCATGCCAACTGAC  
GGGAAATGCCCGTCTTTTTCTGACTGACAAACAATGCGTGCGAATTCCTGCCTTTCAGCA  
GAAGTGGGCGTGCCTCCGTATAATAGCGTTCCACCCAATACGCCGACTCCTGCCCCATCG  
GGACCATCCTCTGCTTATCACCTTTCCAGCGCGGTAATACAGCCCCTGTCCAAATCCA  
CATTGCCGAAGTTACAGCCGACCGCCTCGCTGACGCGCAAGCCGGTCGCGTACATCAATT  
15 CGAGCAAAGCCTTGTCCCGCAAACCGTGCGGCGTGTGGTATCCGGGGCGGCAAGCAGTC  
GGGAAATCTGCTGCTCGGTGATCAGGGTCGGAATATTCTTGTGATTTTGGGCGGTTTCA  
GCAAACGGGTGGGATTGTCCGTCTTATGCCTTACGCTCCATCCATATATACAGGCGTT  
TGCATGCCGATAATGCGCGCGCCTGCGAACTCCGTTGCTCTCCGTCAACATAAAACCGCG  
CCGCCAAATCCGCTTCGTCCGCATCCTTCAGCATTCTGCCGATTGGGACAGGCGGCGGG  
20 CGATTTTTTCAAATCGCGCCGGTAACCGTTTAAAGTATTCTGACTGAGCCGCTGTCCA  
ACCACAGCGTTTCAAGCAGCCTGTGATCAAACCTTCTTCATACCGTTCCAAACAAATG  
CCGTCTGAATCTTCTTCAGACGGCATGGTTCACATTATCGGGAAAGCGTTTCCAATACTT  
CCTGCGCGTGACCCGCCACTTTGACTTTCCGCCATTATGGGCGATTTCTCCATCCTTAT  
TCAAGACGAACGTACTGCGCTCGATACCTAACGACTCTTCCCGTACAGTTTCTTCAATT  
25 TGATGACATCAACAGGCGGCACACTGTTTCATCCTTGTGCTCAACAGCTCGAACCGBA  
AACCTGCTTGGCGCAAAAATTCTGATGCGCCTTTACGCCGTGCGGGGAAATACCGACCA  
CGGTATAACCCAATGCCCTCAAACCTGTTCCAAACGCGCATTGAAATCCAAGCCTTCCGTG  
TACAGCCCAGCGTACTGTCTTTCGATAAAAAATACAGACCAAAGGCAGATGTTCTGCCG  
AATGAAAATCCGCACCGCTGCTCGAAGGCAGGGTAAATTATATTTCACATCCATAGTCC  
30 TACTCCCGATATTCCCATATTCAAACGGCACGCAGACGCACCGCCGCAATTGCCAAAC  
CAACCCCGATTCTACCGCCCCAAGGACAAGGATTCAACCGCCGGAACATCCAAACCGA  
CACACGACGGCATGAAAAATATCCATGTCAAACCACAAAATATGTTCCGATTAAAAACA  
GAATGTTATAAAACCAATCCCCAAACACAACAAGACCGCCCGCCTACGGGCAGTCTCC  
TGTCAGACGACATACTTTACAGATGGCTGTTTTTTCAACAAAATAACGCCAATACTCAAA  
35 AATATGGAATCAAAAATGTCCATCCATACTCTGAAACGCCTGCCCTCATCGCTGCTGCTC  
GGTCTCTGCCTTTCCCTGCCGTGAGCCACCTTTTGGCGACAACGACATTTTAGGGCAA  
TTTTTTAGAACAGAACATGCTTACCTCTCCGATCCGATAGAAATATTCGCCGAAAGCAG  
ATACACCCACCAACACCAAGCCATTACAGGCGGTCTGATTCTCTCTCACAGTCTGCC  
CTGGTCTGTCACAAACAAAACCGGACAGATACTGTATCAGAAAAACGCCGACAGGATTATG  
40 CCCATCGCCTCCATTTCCAAACCTGATGAGCGCGATGGTCGTTTTGGATGCAAACCTGGAC  
ATGAACGAAACCGTTACCATACGCCCGACGAAATCGACCGCATCAAAGGGACCGGCAGC  
CGTCTTGCCATAGGTACGGCACTTACACGCAAAAACTGCTGCACCTGAGCCTGATGAGC  
AGCGAAAACCGCGCCACCCATGCATTGGGCAGAACCTACCCGGCGGCATGGGCGCATTT  
GTCGCCGCCATGAACCGCAAAGCCCAAAGCCTCGGTATGTACGGCAGCCGCTTTTACGAA  
45 CCGACCGGACTCAACTTCCAAAACGTTTCTACCGCCAAAGACCTGAGCCTTATGGTCAAC  
GCCGCCGCCCAATATCCGCAAATCCGCAACCACTCGACTTCCAACTACGCCTCGGTACAG  
ACCAAAAACGGGCAGCAGAACTACAAAACCTCAATGCCCTGGTCAGAGAAGGCATGTGG  
AACATCGAATTGCAGAAAACCGGCTACATACGCGAAGCAGGCAGGTCTATGGTTGTCAAA  
GCCAACATTCAAAACCAACCGTTACCATCGTATTGCTGAACTCGCCACATCCGCCACA  
50 CGCGTCAACGACGCCCGCAAATCGAATCGTGGATGCTGCAGCAACGCTCCTGACATACA  
AATGCCCGGCGGAAAACCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 295>:

-718-

**GNMCW06F gnm\_295**

CGTTTCTTCCAGTGCAGCTATTGATTTAGTTATTAATCGTTCACTTCCGATATGGCGGA  
 TGGTTATTGGGCATTAGGTTTGGGGATAGAAGCCGAACGTATCCACAATGAGCAAGCAGT  
 AAATAATCCGAACGGTAGCGAAAGGGATAATAGAAAGCAGTTAATATCTGCTTTAGATAA  
 5 AGGATTTGATGGATCTTTTAAAGAGAAGCATTCTTTTACTTTTACAACTCTGTGATGATGGA  
 TGTAAACAAAGTTAGGTGTTGAATATACAATAGATGGTTGGCAAAAATTGGAGGTTGGGG  
 TAATGGGATAATCAATGATTTATATAAAAGTGTGTAAAAAGAGAGTGGACTGGAATATT  
 TGAGATCGTTAATAATAACATCAAGCAAGGAAATGAAGCTTTAAATGAAATCAATAGC  
 TGGTCTCGGATATGAAAGCTGCTGGGCAAGGAATTTGGAGATGACTTAAATACACCGTGG  
 10 AATAATCTCACTCAGGCTGCCGAAATAATCTATAATGACATAGTAGACCATACTAGTCAG  
 GAATAGAAAAAGGTGTCAAAGCCATTAAAGAATTGTCnGAAAAAATGAAAAATGCTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 296>:

**GNMCW14F gnm\_296**

15 CCGATCCGACCACGCCCCCGCGATTCCCTCAAACGGTTTCCCGCGTTCTTCCCAATTAT  
 CGTACATTAGGTTCTGCTACGGTTTTCCGCCCAATGTGGCAACTTGGCGCCCTGTCCGAA  
 TGTGCTGCGCGCTTGTCTGAAGTTCCCTGCCCTTGGCTTTCTTCTTTGTATGGGTTAAAC  
 GGCAAGCCGTTTTTTACATAGTCCTTGGCACATCAACTCCGTCACCTCTTTCAATGCCGT  
 CCCTTGATGCGAATAGCAGGGCGCATCCGGTTCTTCCGCCTTCTATACAGCCTGCTATAT  
 20 ATTCAAAGGTTCTTACCTGCCTTACACCGTTATAAATCGGCTTGCTTCGGGTTTTTCGGA  
 CAATGTGCGAACAACATATCTGCGGTAAGGTTGCCGTTATTTACCGGGCTCGCCTTCTG  
 TTTTATCCGGAAGTACTGCCTGCTGTTCTGTTGCCGCCGATTCTGTGCTGGCGGGTTCT  
 TCCGTTTTTTTTCCGTAACGGCTCAACATTTTATAGGACAGGCCGACAAACACGGGAATCA  
 GCAATAACTATTACGGCAGAGTGTAAG

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 297>:

**GNMCX02F gnm\_297**

GGCCAGTGCCAACAGTGCCAAAGCTTGCATGCCGTGCAGGTGCACTCTAGAGGATCCCCGGC  
 GACCATTTGGGTTTTGAATAAAGGCGGTGCGATTTTGGTGGAGATGGACAGCGCAATCGG  
 30 GGAAATCATCAGTTTCGCTATCGTGATGGCGAGGACGATCAGTGCGAAAAACGGAAATAG  
 GAATCGGGGAACCGGAGGAAATAAAGGGGACGAATCCCAAAAACGACGCGCCGGTAACAA  
 ATACCGCCATAGCGAATTTACGCGGGTTTTGGGCTGTTTGCGCCCATTTTTGTCCACA  
 TTGCCGCCATCAGTCCGGAACAGGATGACCCACAGGCTTTGCATAGAATCTTTCCAAG  
 CGACGGGCACGGTAAACGAACCGATGGTGCGGTTGACGGTTTCGTGCGAAATAGACGGTTG  
 35 CCACGGTGTAATCTGAAACAGACGGCCCAACATACAGATGGTCAGGAAAAGCGGGA  
 TGTAGGCGATGATGTCCGTTTGTGTCGGAAGTACGCGGGGGTTGGTCAGCAGGCGGG  
 CGAAATAGGCGATGACGGCAAGGATGACGGTAGATAATAGGATGCCGAGAAATTGTCTGA  
 GGTTGACAAGCCCGGTTTTGATGGCGGTTGCAAGTGCGGCGATGAGGGCGATGCCGACGG  
 CGGCCGCGATTTTGCCTGTCTTTTGAAGCGGATGGGGGACGGTGGGGTGGGGCAAGT  
 40 TTTTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 298>:

**gnm\_298**

CCTTCCTCGGCTTCTCAAAGGCGTAGATTTTCATGTGGACGGTCAAACATATCCGACACC  
 45 AGCAACCCCGTCCGTCCGAACGCAAGCGCAAAGGCATCATGCACCGCCAACGCAACGGC

AGCGTCAAAAACACCAAGTCCCGCAAACAGAGCCGCATAAGGATATTTCTCGTTCACAAAC  
 ATCGCCGTCCCCCTCTTCCGAAGCAGACCGCATTATATAGCGGATTAACAAAAATCAGGA  
 CAAGGCGACGAAGCCGACAGACAGTACAAATAGTACGGAACCGATTCACTTGGTGCTTGAG  
 CACCTTAGAGAATCGTTCTCTTTGAGCTAAGGCGAGGCAACGCCGTAAGTGTGTTTGTGTTA  
 5 ATCCACTATACCGCGCACTGCCTTGCCGCCCGCCGAAAAGTTGCACAAACAACCGTTCA  
 TATATATCATGACGAAAAACGCCGGTGTAGCTCAGTCGGTAGAGCAGCGCATTTCGTAAC  
 GCGAAGGTCCGGGGGTTTCGATTCCCTTCTCCGGCACCAATACCAAGCACAGACCCCTCCCTT  
 CCTCGGGAAGCCTGTGCTTTTTCACATTTCCGCTTCAGACGGCACAACCGATATGAACAC  
 CTCGCAACGCAACCGCCTCGTCAGCCGCTGGCTCAACTCCTACGAACGCTACCGCTACCG  
 10 CCGCCTCATCCACGCcGTCCGGCTCGGCGGGGCCGTCTGTTCCGCCACCGCCTCCGCCCG  
 GCTGCTCCACCTCCAACACGGCGAGTGGATAGGGATGACCGTCTTCTCGGACTTGGCAT  
 GCTCCAATTGCAAGGGGCGATTACTCCAAGGCGCGGAACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 299>:

15 **gnm\_299**

ACTTGTCATGCCTGCAGGTCGACTCTAGAGGATCCCGTTACAAAAGATCATTAAAAAATC  
 TTTCAGGAAAATGAAAAAGAGATCCTGAAAAACATTGATAGAATTGAACGGATTCAAAAG  
 TTAATTATTGGTCAAGTTATGCATAAGACCAATAATCGAGCAAACCCCCAACAAGTTTTT  
 20 ATAATTGTTGAAAATATGCTTCATGAAGTTCGGGAAAGAGATAGCTAAAAAAATCAAAT  
 TATTTATCGCTATATATAATCCTTAAATTCAAAGCTTTGAATGACCTGCTAACACCCGTAT  
 CTTCTCAGAACGCCAACTAGAAATCCGTTTCAACTCCTCGGGTACCGAGCTCGAATTCGT  
 AATCATGGTCATAGCTGTTTCTGTGTGAAATTGTTATCCGCTCACAATTCCACACAACA  
 TACGAGCCGGAAGCATAAAGTGTAAGCCTGGGGTGCTAATGAGTGAGCTAACTCACAT  
 TAATTGCGTTGCGCTCACTGCCCCGCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATT  
 25 AATGAATCGGCCAACGCGCGGGGAGAGGCGGTTTGCCTATTGGGCGCTCTTCCGCTTCCT  
 CGCTCACTGACTCGCTGCGCTCGGTCTCGCTGCGGCGAGCGGTATCAGCTCACTCAA  
 AGGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAACATGTGAGCAA  
 AAGGCCAG

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 300>:

**GNMCY27F gnm\_300**

CCAGTTTCGATCTTGATTCTGTGATACCGAAGCCCCGCGTCCCGGCCAAAATATCAAGA  
 TGTTTTTCCGAAAAACCGCAAGCCCGGTACGAGCTCGAATTCGTAATCATGGTCATAG  
 CTGTTTCCTGAGTGAAATTGTTATCCGCTCACAATTCACACAACATACGAGCCGGAAGC  
 35 ATAAAGTGTAAGCCTGGGGTGCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGC  
 TCACTGCCCCGCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCCAA  
 CGCGCGGGGAGAGGCGGTTTGCCTATTGGGCGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 301>:

40 **gnm\_301**

GGATGCGGATGCGCTGAACATATTATCAACCGATGCCGAAACCCGAAATCTGGCGCGCGG  
 GTGTAAAAACCTGATTTTAACGCCACACCCCGCCGAAGCCGCGCGCTGCTTGGAACGAC  
 GGTGCGCAGGTTTCAGGCGGATCGGACGGCGGCGAGTGAGGAAGATAGGGGCAATTTTCGG  
 CGCAACCGTGGTTTTAAAGGGGCACAAAACATTGGTTGCCTCACCCGATACGGAATCTA  
 45 TGTCAACGAAAGCGGCAACGCGGGATTGGCAACGGCGGGCACTGGCGACGTATTGGGCGG  
 CATCATCGGCAGTCTGCTCGCACAGGGCGTGCCGGTTTTTGAAGCCGCTGCGCGGGCGC



-720-

5 GTGGCTGCACGGCGCGGCGGGATGTCATAAAAGAATCGGCAGGCATTGCGGCAGGGCT  
GTTGGCAGGGGAAATCGCTCCGGCGGCAAGGTGGCTGCGCAACCGGATAACTAAAAGTAT  
GTAAGAAGATATAGTGGATTAACAAAAACAGTACATCGTTGCCTCGCCTTAGCTCAAAG  
AGAACGATTCTCTAAGGTGCTGAAGCACCAAGTGAATCGGTTCCGTACTATTTGTACTGT  
10 CTGCGGCTTCGTGCGCTTGTCTGATTTTTGTAAATCCACTATACCATAACAACACGCCG  
GAATTAAGTTTAAATTTGAATAAAAGGTTCTGGGTTCTGCAAAATACAGAACCCGAACCTT  
GTTCCGATATTGAAACCGGCTGCCGATTTTTGGGCGGTGCGGCTTGCAAGTATCAAGATT  
CGCATATGCCGTCTGAAGCTCGGAGAGGTTTCAGACGGCATATGCTTATTTGGGCTGCTCT  
TCAACGAATCTCGGACCTTTCAAGATGCCGTTGTGAGAATrGGCGACAGCAGGTTGTAT  
15 GCsGCGTTTTTGGAAACCTGATAACCGCGGTGCGTCAGGCTGTTGGCAATCTGATTGACC  
ACTGCCGTGACCAAAGCCCCAACAGGCCGCTGTTGCTGTTGTTGCTGCCTTCGCGGATG  
CTGGCCGAACCCGACCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 302>:

15 **GNMCZ04F gnm\_302**

GACGGCCAGCAACATATACGACGGCCAGTGCCAAGCTTGCATGCCTGCAGGTCGACTCTA  
GAGGATCCCCGCGGCGAATAAGGGCAAATGTCAGGACGGCGCGATCGGTGCGGCTGTGGG  
TGAGATTGTCGGGGAGGCTTTGGTTAAAAATACCGATTTTAGCGATATGACCCCGGAACA  
20 ATTAGATCTGGAAGTTAAGAAAATTACCGCCTATGCCAACTTGCGGCAGGTACAGTTGC  
AGCGCTAACGGGAGGAGATGTCAATACTGCTGCACAAACCGCACAAAACGCGGTAGAAAA  
TAATGCGGTTAAAGCTGTTGTAAGTCTGCAAAAGTGGTTTATAAGGTAGCCAGAAAAGG  
ATTAAAAAACGGGAAAATCAACGTTAGAGATTTAAACAGACGTTGAAAGACGAAGGTTA  
TAATTTAGCCGACAACCTGACCACCTTATTCGACGAAACATTGGATTGGAACGATGCCAA  
25 AGCCGTTATTGATATTGTCGTCGGAACAGAGCTGAATCGCGCTAATAAAGGGGAAGCGGC  
ACAAAGGTCAGGAAGTTTTAGAAAAAATCGTCCTATAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 303>:

**GNMCZ23F gnm\_303**

CCGCATTGAAAGCGGAGACTTATTTTTGTCGCCCTTACCATTCTTGGGAGAAAGGGCTGA  
30 ATGAGAACACCAACGGACTCATCCGGCAATACTTCCCCAAACAAACCGATTTCGTAACA  
TCAGTGATCGGGAGATACGCAGGGTTCAAGATGAGTTGAACCACCGACCAAGAAAAACAC  
TTGGCTACGAAACGCCAAGTGTTTTATTCTTGAATCTGTTCCAACCACTAATACTAGT  
GTTGCACTTGAAATCCGAATCCAAGGCCGTCTGAAACGATAAGGTTTCAGACGGCATTTC  
35 TTTCTTTATAGTGGAGAACTTTGGCATTTTTTTTTGGCTCGCTTAGCTTGATGATACGAT  
TCTCTAAGGTGCTGTAGCACAAGTGAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 304>:

**GNMCZ29TR gnm\_304**

TCTGCGGCTCGACGCCTTGTCTGATTTAAATTTAATTCACTATATTTTCATATGCTTATT  
40 TATCTAACTTTTCCCGGTAACAAGGTAACAATAAGGGTATCGCTTCCTAGTATAGGTT  
TTTTCCAAAACCCAAAAAAACCGCCCTGCATCTTGGACGGTTTCCCCCTTGTTCCCTA  
CGTCTTGGCAGTATCCCCGCAAGCTCTTTCCGCTTGGCATTCCCTGATTTGGCGGTCGT  
TCAGCTTTATTTTTGCGGTATTTTTTCGAGGTATTTTTTCAGATACCGCAAAAGATATCGT  
AAATTTTAGGTTACTTCAATTAGGGCGGATTGGACGGGATTGCACTGTGAGGAAGGGGA  
45 CGGCACGATAACAATCAGCCTGAAATCCTTGATTGATTGCAATTGGTTGACAGCGTTGG  
ATGGGATTGAACAAAAACGCCTGAAATTTTCAGGCGTTTTTGTCTGTTGGTGCCGACAG

CGAGATTTGAACTCGCACAGCCTACGGCCACTACCCCCTCAAGATAACGTGTCTACCAAA  
TTCACCATGTCCGCATTGAAAACTGTTATTTCTGCTGCTGACGAACAAGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 305>:

5 **GNMCZ50F gnm\_305**

CGGCCAGTGCCAAGCTTGCATGCCAGTGCGAAGCTTGCATGCCTGCAGGTCGACTCTAGA  
GGATCCCCCAGACGCAGGTACAGATTAGGCGGTGTGCCGTAATCGTACGAATGCCGATT  
AACCTAAGCAGACATCAGTATTTAGGAAGTGGATGTTTATGGAGCAAAGGTTGTACGAA  
GGGTGGAAGGCAACCTGTGGGTGTTTGGTATGGTCGCGCTTGAAAAACGTGTTTTAAGG  
10 GACAAATGCCGTCTGAAAACTCGGTTTCAGACGGCATTCTTCTGTTTATTTAAAGCAAACAG  
GAAAAGGCAGCAATATTCTGCAGTCTTCTATTCACACAAGCGTTTTATAGTTAATTAA  
AACAAAGATAGTACAATACTCAACTTTGAAGGTCTAACCATGGCATACTCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 306>:

15 **GNMCZ56F gnm\_306**

GACGGCCAGCTAGGAAACGACGGCCAGTGCCAAGCTTGCATGCCTGCAGGTCGACTCTAG  
AGGATCCCCGTTCCGTATTGGTTGCAACACCTTTGCCGGCACAGTCGGGAAATGCTGTTG  
GATTCACGGCAGCACAAATGAAGTTCGGGGACAGTAAGAATTTCTCAAAATTAGAGAATC  
TCAAATACCCGTGCGAAGTTATGGTAACGGTTGAAATGACTTCGACAGGTAAGGGCATGG  
20 TTCCTTCATTAATTGATTTTCAGGTGGCAGAAAAGCCGAAAGGTTGATTTATGAAATTTG  
AAGAACGTTTCATAGTTCAAGACTTGGAAACGCATGACTTTATTTATCCCGATCCTTTTCG  
GTGATGTGGGGTTTACTCAAAATATTAAATCAGCAGGTCAATTTGAAAGCTACGAAGATG  
CGTTGAATTCAGGCATAAATGAAATAGGCGGAGGATTCCAGATATTTAGTTCTTCGTAA  
AATCGGAATAAAAGAAAAACAGGCTCGGCGGGCGGTCTGTCAACCTTTCACAAAGCCCGC  
25 AACAAAGGAAAAATA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 307>:

**GNMDA71TF gnm\_307**

CCCCTCCGACCGGGAAGCCTGTGATTTTATTTCCAGGCGTATATATGCGGGATGAAAT  
30 GGTAGTTGGGCGGAGGGCGGCGTTTTGTATGTGCGCGACATCGCCCAGTACAGCCGCAA  
CATCCAAGCCGGTATTGCCTTTATTGTGCGAAAGGCGGAACACCGCCGCGTCAGGGTGGT  
CGCATCGGGCAGCAGGGCGGCAGGTTTCAGACGGCATTGCCTGCGAGGAAAAGCTGGCGGA  
ACTGCTGTGCGAATCGGTCTGTCGTATTCGCGCGCTGCGTATGCAGCATGAAGACATTCC  
CTTCCTGATACAGGGGATTGCCTGCAATGTGGCGGAAAGCCAAAAGATTGCGCCTGCCTC  
35 ATTCAGTGAAGAGGCACTTGCCGCATTGACCCGTTACGACTGGCCGGGAAATTCGACCA  
ACTGCAAAGCGTCGTTGCAACGCTGTTGTTGGAGGCGGACGGACAGGAAATCGGCGCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 308>:

**GNMDB47TR gnm\_308**

CTGGTCGGGGGAAGTCCACTTTGTTAAACATTTCAACAGGTAGCCTAAAACCTGAACTG  
40 GTACAGTTAGTATTAATGGGCATGATATATATCAAGTTTCTCCATCCTTTATTAGGGGAT  
TGAGCGGGATTGTTTCGCAAGATGATGTCCTTTATGCAGGAATATTGGCGACAATAAGC  
CATAACGCGTGATTTACCAACCTGTTACCATTGAGCCGCGGAGATCACGCCGCGTATCG

TCCGTGAGGAGAACTACGGTGGCCAATAAATTAAGAACTACACCATCAACTTCGGCCCCG  
CAACACCCTGCGGCGCACGGCGTATTGCGTATGATTTTGGAGCTGGACGGCGAACAAATC  
GTCCGTGCCGACCCGCATATCGGCCTCTTGACCGAGGTACCGAAAACTGGGGGAAACC  
AAAACCTATCTGCAAGCCCTGCCCTATATGGACCGCTTGGACTATGTTTCCATGATGGTC  
5 AATGAGCAAGCGTATTGTTTGGCAGTAGAAAACTTGTTCGGTATCGATGTGCCCATCCGC  
GCCAATACATCCGCGTGATGTTTGCCGAAGTAACGCGCATCCTCAATCACTTGATGGGC  
ATCGGTTTCGCATGCCCTCGACATCGGCGCGATGACCGCCATTCTTTACGCCTTCCGCGAC  
CGCAAGAGCTGATGGACCTTGACGAAACCGT

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 309>:

**GNMDB48TR gnm\_309**

CTGGTCGGGGGAAGTCCACTTTGTTAAACATTTCAACAGGTAGCCTAAAACCTGAAACTG  
GTACAGTTAGTATTAATGGGCATGATATATCAAGTTTCTCCATCCTTTATTAGGGGAT  
TGAGCGGGATTGTTGCGCAAGATGATGTCCTTTTGCAGGTTCTATTGGGGAAAATATTT  
15 CATTTTTTGTGAAAGCCCAAATATGGAGCTCATTGAACAATGTGCAAAAATGGCACAAA  
TACATGACGATATACTTAAAATGCCAATGGGCTATGAGACCTTGATTGGCGATATGGGAA  
ATATCTTATCAGGTGGACAGAGGCTTGAGAGTTATTTTGGAGCTGGACGGCGAACAAATC  
GTCCGTGCCGACCCGCATATCGGCCTCTTGACCGAGGTACCGAAAACTGGCGGAAACC  
AAAACCTATCTGCAAGCCCTGCCCTATATGGACCGCTTGGACTATGTTTCCATGATGGTC  
20 AATGAGCAGGCGTATTGTTTGGCAGTAGAAAACTTGTTCGGTATCGATGTGCCCATCCGC  
GCCAATACATCCGCGTGATGTTTGCCGAAGTAACGCGCATTCTCTGTCACTTGATGGGC  
ATCGGTTCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 310>:

25 **gnm\_310**

TGCCGCTGCTGCTGAAGGGCGCGGACGTGTTCAATACGGGGAATGCGCGTTATGTGCTGA  
CGGCTATGTGTATGCCCTTTCCGGCGGTGTCGTGCGTCATCGGGCTGGTGGGGCGGTTCA  
GGCTTCAGACGGCATCGGGCAGGGCGGCAAGTCAGGGGTGCGGCAAGGCGGACGGAT  
AGGACGCATTTTTTCAGCGGGTGCGTCGAGAAGCAGCCGATGTGTTTGGCAGCCGCAGCTT  
30 GGGGGGTGTAGTGCTAATGGCGGTTTCTTTGCTTTTATAGTGGATTAAACAAAACCAGTA  
CTGCGTTGCCTCGCCTTAmCTCAAAGAGAACGATTCTCTAAGGTGCTGAAGCACCAAGTG  
AATCGGTTCCGTACTATTTGTACTGTCTGCGGCTTCGTGCGCTTGTCTGATTTTTGTTA  
ATCCACTATACCATAACAACACGCCGGAATTAAGTTTAAATTTGARTAAAAGGTTCCGGT  
TCTGCAAAAATACAGAACCCGAACCTTGTTTCGGATATTGAAACCGGCTGCCCGATTTTGGG  
35 CGGTGCGGCTTGCAAGTATCAAGATTGCGCATATGCCGTCTGAAGCTCGGAGAGGTTTCA  
CGGCATATGCTTATTTGGGCTGCTCTTCAACGAATCTCGGACCTTTCAAGATGCCGTTGT  
GAGAATAGGGCGACAGCAGGTTGTATGCGGCGGTTTTGGAAACCTGATAACCGCGGTCCG  
TCAGGCTGTTGGCAATCTGATTGACCACTGCGCTGACCAAAGCCCCAACAGGCCGCTGT  
TGCTGTTGTTGCTGCCTTCGCGGATGCTGGCCGAACCCGACCACAACCTCTTTCCGTTGC  
40 GGAATCGACCAGCCGTGCTTTGGCGGATACGGTCGTACGCTGTCTAAAATTTGATATG  
AAGTGCCGTATTTCGGTAACCGTAATGTACAAAACCGCATCATTGCCGAAAATCTGATGCA  
GTTTTTCCGGCCCGACGGCGTGAATATCGGCGGCATTGGTCAAGCCGTTTTGTTGAAGG  
TTTCTCCACGACTGCGGCGGGGAAGACGTAATAGCCGGCTTCGGAAAGCGGCGCGGCGG  
TCGAAGCCAGTACACCCCATGTTCCGTTGACATCGGGCGATTTCGTTTCAGCGGCGGAACCA  
45 CCAAAATTGAAGCCGGTTTGCTTTCCTTGAATGACGTGTAGTCGAAATCGGGCGCTTTTT  
GAAGTTGGCAGGCAGACAGCGGCAAGCCCTAAAATCAAAGGTTTCATCG  
CTTGCCCTCCTTTACCGGTTTTCATCAGGAAGTCCATAAATACGCCCATTTCGGGAAACAG  
CCTTTTCTCTTCTTCAAACCTGGCGGAACGCGCCCTCTTGTCTCCCGAACGGGAAAGCAG  
CAGTCCCAGATGGGCGTGCGCACCCGGGGCGGCATTATTTTTTTGTTGCCGGCTTCCAC  
50 AAAGTATTTTTCCATCTTTTCGGTCTGCTTGCCCAACGAAGTGTCTCGTTTTTCAAACC

TTCATAGACGGTATCGGGATAGCCGCCGTAATAATACAGGGATTTTTGCCCGTTGCCGCC  
 GCAGGCGGTGAGAGCAAGACCGCCGACACAGCGACAAACGGCTCAAGGTTTTCGGATT  
 CATCATTTCTCCTTAACGGTTGGGTTGCCATGCGCCGTTGTCAACAGCCTGAACCAGGCT  
 GTTGACGGCTTCGCGGATTGCCAAGTCTAAACTTTGCCGTTCAAAGTCGCATCGTAGCC  
 5 GGAAGTCCCGCCGAAACCGATGATTTACGGTTGGAAAGTGCCTATTCGCCCCGCCCTG  
 TGCGGAATAGACGATTTCCGAAGTATTGACGTTGACGATATTCAGAGCCACTTTGCATA  
 GGCGATTTGCGATTGCGCGGACCCAAAATGCCGAAGAGCTGATGATCGCCGACATCTCT  
 GCGTCCGAATTCGGTTACATCGCCGGTAACGACATAATCTGCGCCTTTCAGGTTATGCGC  
 10 TTTGCCGGAATGCCGGATTCTGTGTTTAAATGCGTTCAAATTGGTGCGGTTGAGTACGTT  
 GAAGCGGTTGGTCTGTTGCAGGTGCGTTACTAGAATGGTTTTTGCCTGGCTGCCCAAACG  
 GTCTTCCCGCTCGGAGAAAAATGCCTTTTTGAAGCTGGAGCGGTTGTGAATGTTCCGAC  
 GGAAATCGGGGTACGAACACCGTGATATTGCGTATTGTAGGAGGCGACTTTCTCTACCTC  
 GAGACTGCGTGAGGATTGCGTCGCACAGCCGGTCAGTGAAACGGCAGCGGCGGCAAGGAC  
 AACGGCGGTGGAACGGTTTTCATAAATTTACCCTAAGGTCAAGTTAAGGAAATAACGG  
 15 GGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 311>:

#### GNMDE39F gnm\_311

CGTATTGCGCACCGTCCCCAAAGTCTCCGGCGTCTGCGAAGCGTCAAAAAAGATATTCCC  
 20 GACAGCGGGTCCCGTCTGACCGGCGGAGAAAACAATATCGGCTTCGCACAAAGCAAACG  
 CTTGGCGGAACTCGGCGTCAAGTCCGCATAAGCCGCGTGTTCAGACGGCATGGCGTTCAG  
 ATGCCGTCTGAACACTTTGCCTGTATAATCCGCATCTTTACTGTCCAACCTTCGCGGTTCCG  
 CAAACCTCCCGGTTACCAAACTAGGGTTTCGATATGTCAAACCAACAAGCCTTGGTCAT  
 25 CTTTTCGGGCGGTGAGGATTGACACCTGCCTGATTGAGGCAATCCAAACCTACGGGCG  
 CGAAAACTCCAAGCCATTACTATCCAATACGGGCAACGCATGCCGTGAGCTGGAACGT  
 GCCCGTGGATTGCGCAGGATTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 312>:

#### gnm\_312

30 GAATATCCAATAAGACAATATGTTCTTTTGAAAAATACTTTTGGwtTTTTCGCCGAAAAC  
 AGGACGGTTCAAGTTGCGGAAATTGTTTGCAATTCTTTAAAGCAGCGGCGGAGGTCACA  
 ATGAAATGTCCGAATGGGGATGTGGCGGGCGGCAGAAATCATCAATGCTGCCGACTGCCA  
 TACTTCTGAAATCTACAAAATGATGCATCGATCAAACAATATAACCGCTTTAAAAAACCG  
 ATGCCGTCTGAAACGCTTTCCGGGTTTCAGACGGCATCAAAGGGTACGGTCAGCGGATG  
 35 ATGCCGCGCGCGGATTGTGCGAAAAAGTCTCGGAATACGGCAAGCTCGGCTTGGGTTTCG  
 GCGCGGCGGAGAATGTCTGCCTTGGCTTCTTCAAACGGAATGCCGCGATGGTAGAGGGTT  
 TTGTACACGTCTTTGACGGCGGAAATCTGCTCTGCGGTAACCGTTGCGGCGCATGCCT  
 TCGCTGTTGAGCCCCGCGGTTCCGGCGGGTAGCCGATGCCATAAAGTAGGGCGGCACG  
 TCTTTGTGTACGCTGCGGCAAACGCGGTGATGGCGTAGTCGCCGATGCGGCAGAATTGG  
 40 aAAACAGCGTGTAGCCGCCCAAACGACGTAGTCGCCGATGGTAACGTGTCCGGCAAGC  
 GAGGCGTTGTTGGCGAAAATGGTGTGGTTGCCGATGAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 313>:

#### gnm\_313

45 TTATAACATAACAAAATCTTTAACCCACACCGACAAAGGCTGCACCATGAAGAAAACATT  
 GACACTGCTCGCCGTTTCCGCCCTATTGCCACATCCGCCACGCCACCGCGTCTGGGT

CGAAACCGCCACACGACGCGCGGCGAATACCTTAAAGCCGACTTGGGCTACGGCGAATT  
TCCCGAACTCGAACCCATCGCCAAAGACCGCCTGCACATCTTCAGCAAACCGATGCAGCT  
GGTTACCGAAAAAGGCAAGGAAAAACATGATTCAACGCGGCACATACAACTACCAGTACCG  
AAGCAACCGTCCCGTTAAGGACGGCAGTTACCTCGTCATCGCCGAATATCAGCCTACTTT  
5 CTGGTCAAAAAACAAAGCAGGCTGGAAACAGGCGGGCATCAAAGAAATGCCTGACGCAAG  
CTATTGCGAACAACCCGAATGTTTCGGCAAAAACATCGTCAACGTTCGGACACGAAAGCGC  
GGACACCGCCATCATCACCAACCGGTTCGGACAAAACCTTGGAAATCGTCCCGCTGGACAA  
TCCCGCCAACATTACGTAGGCGAACGCTTCAAAGTCCGCGTTCTGTTCGGTGGCGAACC  
GCTGCCCAATGCCACCGTTACCGCCACCTTTGACGGCTTCGACACCAGCGACCGCAGCAA  
10 AACGCACAAAACCGAAGCACAGGCTTTCTCCGACAGCACAGACGACAAAGGCGAAGTGGA  
CATCATCCCCCTTTCGCCCAAGGCTTCTGGAAAGCCAATGTGGAACACAAAACCGACTTCCC  
CGATCAAAGCGTGTGCCAAAAACAGGCGAACTACTCGACTTTAACCTTCCAAATCGGTCA  
TTCGCACCATTAATCCCGCCCGCACAAAATGCCGTCTGAAGGCTTCAGACGGCATTTTT  
TGTTCAAACATCAATACCAACCGCGCAGTTTCATCGCTTTTTCAACACGGCGGATACTCA  
15 TCATGTAAGACGCGGTTTCGAAATCGACATCATACTCTTTCGCGCAAGTTCATATATCGC  
GGAACGCGCGTTCGACAGGACGACGTTTTCTTCTCTTGAAGTTCGTCAAACCTCCCAATAAT  
AGCCTTGCAGGTTTTGCACCCACTCGAAATAGGAAACGACACGCGCGCGCAGTTCGCCA  
GAATATCAGGCACGACCAATACGCGCTTTTGACGCGAGGATCACGTTCGGCTTCGGGCGTAG  
TCGGGCGGTTTCGCGCTTCGACTACGATTTTCGCGCGGACTTTACCGCGGTTTTTCGGAAG  
20 TCAGTTGGTTTTTCAGCGCGCAAGGGGCGAGTACGTCCACATCCAAAGCCAAAAGTTTCGG  
CGTTGGTAATTTCTTTCGCGTAACCGGCTTCGTTGGTGATGAAGCCTTTTTCTTGAAGT  
CTTTAAACAAAGCTTCCATATCCAAACCGTTTTCGTTGTAAATGGCAACGTCAACAGTAG  
AAACCGCAACAACTTTTTCGCGCGGATTGATGCGCGTAATAACCTGTGTGGTAACCCACAT  
TACCGAAACCTTGAATGGCGTAAGTGGCACCCCTTCACGTCCTTGGCCAGTTTTTCCAAAG  
25 CTTGGACGGCGGCGAGGTTTCAGCGCGTAACCGGTAGCCTCGGTACGCGCCAAAGAGCCGC  
CGAACTCAACCGTTTTTCGGGTAAATACGCGCGGCGCGGAATGTTTCACCACGTTTTTCAT  
AAGCATCCACCATCCACGACATAATTTGCGGTTGGTATTACATCGGGGCGGGAATAT  
CGATTTTTCTCGCCAATCAGCGGGGCAATCGCTTCAGCATAAGCGCGGGCGATGCGTTCCA  
GTTTCGCGCTCGGAATAATTCGCGCGGATCCAAAGGTAATGCCGCTTTGCGCGCGCGTAAG  
30 GAATACCGCAACGCGAGCATTTGATGGTCATCCAAATTGACAGGGCTTTGACTTCGTCCA  
AATTACACTGGGATGGAAGCGCACGCCGCTTTATAGGGGCGACGGCGTTGTTGTGTT  
GCGAACGGTAGCCCGTGAAGGTTTTGACCGTGTGTCGTGTCGAGTTTGACGGGAAAATTGA  
CTTCCAACACGCGGGTCGGACTCTTCAGGATTCATAAACGGCCGGATCGGTTTTTCAGCC  
GGTCACAGGCGGTTTTACCTGTTTTCGCGCGGATTTCAAACGGATTGAGGGTTTTCTTTTG  
35 CAAGGGCTTCAGACATTTTGCTTCTTTTCAAAAGAGAGGTTTCGGAATGGAACAAGCCA  
TCAGGTTTCGCAACTATAACCAATTTTCAAGCAAAATGTAATAGCGTGTAGTTGGAATCGG  
CCCGATTTGATTAATCTATATATGATTTTATTTCCCAAGCCGACGGAATCCGTCTGAAA  
AAAGCGGAACACATATCCAAAAAGCAAATGTCCAATTAATAAAGATATAAGAATCCTTT  
TATTTTTTAAAAATTAATTGGAACGGCGCGGGATTGTCACACCCTTCCCGACTCCGTT  
40 CCGAAATCCGGAACACCGCGCGGCAAAACCTGTTTCGATTGTTAACAATCCATACATTAG  
AAGCCCTGTGCAACGATGTTAAATAAACCTTTTCAACCCGACAGAAAACCGGATTATG  
AATGCAGCCATCGAACACGTCCAAGCCGTTCGCTTCGATTTGGACGGCACACTGTGCGAT  
TCCGTCCCCGACCTTGCCGCGCGCGCAGAAGCGATGTTGGAACAACCTCGGTATGAAACCG  
45 CTGCCTGCCAAAGTGGTCGAAAGCTATGTGGGCGACGGCATCGGCAAACTGGTTACCCGC  
GTCTCACCACGACCGCGACCGCGAAGCCGATTCCGAAGTGTGGGAAAAAGGTTTTCGTA  
TCTATATGAAATACTACCGCGACCATTTGAGCGTCTTCACCCGCCCCCTATCCCGAAACCG  
AAGCCGGGCTGGCATTGCTTAAATCTTTGGGCATCCCGCTCGCCGTCGTTACCAACAAAA  
ACGAAATCCTTGCTTCGAGCTTCTAAACAACCTGGGACTCGCCGACTATTTTAGCCTGA  
TACTCGGCGGCGACAGCCTGCCCCGAGAAAAACCCAGCCCCCTGCGCTGCGGCACGCCG  
50 CCGAAGTTTTGGGTATCGATGTTGCAACATGGTTATGGTCGGCGACTCGCGCAACGACA  
TCATCGCCGCCAAAGCCGCGGCTGCCTGAGCGTCGGCGTTACCTTCGGTTACGGCGATA  
TGACGCTGCTCTCGCAAGACGATGCGACCCGCCCCGACTGGATTATCGGCTCGCTGCCCC  
AAATTTACGAAAACCTGCAACCTCAGAAAAACAAGAAGAGTAGGCATTTCGACGGCTCC  
GGTTTGCGCCGCTATGCCGTCTGAAACCTGCCCCACGCCGAAACCGCGCCATGAAACCG  
55 CAAAAATCCCTACGCGCCCGCGCGATGGACATCCTCTCGCGCCAAGAACTCAGCCGCATC  
GGTCTGAAACGCAAACTTGACCCGCACGCCGAAAGCGAAGAGGAGTTGGAAAACGTGTTA  
AACGAATTTGCCGAACGCAACTGGCAGTCGGATTTGCGCTATGCCGAAGCCTATATCCGC

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AGCAAAAGCCGCAAAACACGGTTCATTGAGGCTGAAACAGGCTTTGGCGCAACAGGGCATA  
GATGAAGAAACCGACCGCAACCTGCTTCCCGACCGCTCAAGCGAAAACTGGCCGCCATA  
GCCGTGTTGCGTAATAAAATTCAAACATCCGGCCGCCGACCTTAAAGAAAAACAAAAACAG  
GCACGCTTTCCTCGCCTATCGCGGTTTTGATGCCGATACCGTTCAGACGGCATTGAAACAT  
5 GCCTGGGATGACGGCTGGGAGGAAGACTGCTGAACGAATCCTTGAATCTTTTTGCATGA  
CGGCGTAACCTTACCTCCATTTCCAACCTTTCCGATTGAGAATAAAATGTCCGAACAATC  
CGAGAAAAATCACAACCCACTTCTTGAAGATGAACGCAAAAACCCGGTTTACCGTATGGG  
TCAGGCAGTTGCCGGATTTCATGCTCGTCTGTTGGGCGAGCGTATTGGCACTCGTGTTTTT  
CCTAGTCTTCCGTTTTTGGCTTTCTTAAACAAAATGCCGTCTGAAACCTTCAGACGGCAT  
10 CGGCAGCCCATTTCCGCGAGCTATCCCATCATAGCTTTTTTTAGCTTGAATCCACTTTC  
CCATTCCTTAAATTTTTCCACACCCATTTCAAATACCCCTTTCTTAAACAGGTACACT  
ATGACACAACAACGCCAAGTGCCTTCGCACGAACCTATTATGTCCGAACGATGATGCCG  
GACACCGCCAATTTAGCGGCAACGTACACGGCGGCGAACTCCTGCTCCTGCTCGACCAA  
GTCGCTATTCTGCGCCAGCCGTTACAGCGGCAATTATTGCGTTACCCTGTGCGTTGAC  
15 AAAGTCTGTTTTAAAGAACCCATCCATGTGCGCGACCTGGTTACTTTCTACGCCAGCGTA  
AACTACACGGGGCGTACCTCTATGGAAATCGGCATCCGTGTGGAAGCACAAAACATCCGT  
ACGGGAGAAATCCGCCATACCAACAGCTGCTACTTCACCATGGTTGCAGTCAAAGACGGC  
AAACCCGTCCCTGTCCCTCCGCTGGAATCCTGACCGACCGCCAACGCTGCCGCTACGAA  
AAAGCCAAAAACCGCAGAGACATCAGCCTGCAAGCCTCCGGAGACGTGCTTGGCGCTGC  
20 TGACGGCGGACTATGCCGTCTGAAAGACAGGCACATCGCGCCATCCGTTTCCATTGCAAA  
CGAGTGAAATCAAGCAAATATAGTGGATTAAATTCAAACAGTACGGCGTTGCCTCGCCT  
TAGCTCAAAGAGAACGATTCTCTAAGGTGCTGAAGCACCAAGTGAATCGGTTCCGTAATA  
TCTGTACTGTCTGCGGCTTCGTCGCCTTGTCTGATTTTTGTTAATCCACTATACCCAAA  
CACAGTCAAACAAATTTATATGCCCCATCCCTTCGAATAATTTGAAAACACAGCCGCCA  
25 AAAACAAAAATGCCGTCTGAAAACCTTTTACAGACGGCATTTCCAACTTGATTTAGGCAGA  
AAGTCAGAACGCGATATAGCTGTTCGGGTTAACCGGTTTGCCGTTTTGACGCACCTCGAA  
ATGAAGCTGCGTTCTGGAAGCATCGGTATTGCCCATCAAAGCAACCTGCTGACCGCGTTT  
GACCTGCTGCCCCCTCGCCGACCAGCAATTTTTGGTTGTGCCGCTATGCGGTCAGGAAAGA  
AGAATTATGCTGGATGATGACCAAGTTTCCGTATCCCCTCAAACCTGAACCGGCATAAAC  
30 CACTTTGCCGTCAGCCGCCGCCAAAACGGGCTGTCCCGCATTACCGGCAATATCGACACC  
CTTGTTGTTGCCGCCGAAATCGGCAACCACTTTACCTTGCGTCGGACGCTGCCAAACAAT  
GCCGCCGACCGAACGCGTGCCGGAAGGCGAAGCGGCAGGAGATTGCGGGGCGGGCGCGGG  
AACCGCTTTATTTTCCGCGACGGGGCGCGGCAGGTTGCGGCGCGGACTGCACAGCGGTTG  
CGCGGCGGGTTTTACAGGGGTTTGCACGGCAGCCGTTACGGCGGGCCTGCTTTCTACGGC  
35 TGCGGTTTTTCGGTGCGGCATATCCTGCCGTTTGACTTTAACAATCTGACCGATGCTCAA  
CATATTGTGCGTCATGCCGTTCCACGCACGGAATCGTCTTGAGAGATATGGTAGCGTTT  
GGAAATGTTGTACACCGTGTGCGCGCGCACAAATAGTATGCGTCGCCGCGTTAATGTCGAC  
GGGTGCGGACTGTACGGGCGGTTGCGCGGCGACCGGTACGGCGGGCCTGCTTTTTACGGC  
TGCGGCTTTTCGGTGCGGCATATCCTGCCGTTTGACTTTAACAATCTGACCGATGCTCAA  
40 CGTATTGTGCGTCATGCCGTTCCACGCACGGAATCGTCTTGAGAGATATGGTAGCGTTT  
GGAAATGTTGTACACCGTGTGCGCGCGCACAAATAGTATGCGTCGCCGCGTTGATGTCGAC  
GGGTGCGTAAGAAGGAACGTATGTACCCGAAACGGCAGGTGCAGACGGCGGAACATAAGC  
AGGAGGCGTATAAACCGGCGCGCTTTGCACCGGCGGCACA

45 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 314>:

**GNMDE70F gnm\_314**

CCGTCAAAGCCACCGCGGCAACAGCGCGTTGGGCGGCGACGATTTCCGACCACCGCCTGT  
TCTGCCGCCTGCTCGAACAAAACGGAATCTCCCAACTCAACGGACAAGACAGCCAACCTCC  
TGCTCTCGGTCGTCCGCGGCGGCAAAGGACAATTTACCACGCAAACCGAAGCGCGGATT  
50 AGGCGACGGTTTCAGACGGGATTGGAATCGACACAAGCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 315>:

**GNMDF12F gnm\_315**

ATGACGACGCAGGCTTCGTCTATCATAACAGGTTTCGTGGATTTCGGGCGTGCGGTTTTGG  
 AAAGTTCGGATTGCGTTCATTTTTCTCCTTCGGTAAGGTATATATGTTAAAGGATTTA  
 TTAAATATTCCCCCTGATTGCTTTTAAATCCTGCCTGTTATATCGACCCCGAGTAATGT  
 5 TATTATCGGGAATATCAGCTTATATATCATTTTATTGGACTTTTACAGCATAAACCTTAA  
 ATTATACGCCCTTCTTTTATATCAGCATCACACTCTATATTTTTCTCGTCATTATAAA  
 AAGCAAAACGAGATATTCGTAGGATAGATAAGAATAAAGATAACTCGATATATCCCTATT  
 ATTTTCCATTTCGCGATTTTTTTCCAAATATA

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 316>:

**gnm\_316**

CAACAAAGCAATCTAGAAACCCGTCATTCCGGAGCAGGCGGGAATCCAGACCTCCGACGC  
 GCGGGAATCTATCGGAAATGACTGAAACCCCGAGATTCTAGATTTCACTTCCGTGGGAA  
 TGACGTGGTGCAGGTTTCCGTATGGATGGATTTCGTTCATTCCGAGCAGCGGGAATCCAGA  
 15 CCCCCGACGCGCGGGAATCTATCGGAAATGACTGAAACCCCGCGTTCTAGATTCyCACT  
 TCCGTGGGAATGACGTGGTGCAGGTTTCCGTATGGATGGATTTCGTTCATTCCGACAACAC  
 CGTAATCTCGAAATTCGTTCATTCCGCGCAGGCGGGAATCCAGCCCCCTGACGCGGCGGGA  
 ATCTATCGGAAATGACTGAAACCCCGAGATTCTAGATTycACTTCCGTGGGAATGACGT  
 GGTGCAGGTTTCCGTATGGATGGATTTCGTTCATTCCGCGCAGGCGGGAATCCAGACCCCTG  
 20 ACGCGGCGGGAATCTATCGGAAATGACTGAAACCCCGCGTTCTAGACTCCACTTCnCGTG  
 GGAATGACGGTTTCAGTTGCGCTCCGACAACACCGTAATCTCAAAACCCGTCCGACAACAC  
 CGCAATCTTGAAACCCGGGATTCCGCAyAGGCGGGAATTCAGACCTGTCCGCACAGAAAC  
 TTATCGGATAAAAACAGTTGCCCAAACACGCGTTCTATAGTGGATTAAATTCAAACAG  
 TACGGAATTG

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 317>:

**gnm\_317**

GGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGGCGGAGCC  
 TATGGAAAAACGCCAGCAACGCGGCTTTTTACGGTTCCCTGGCCTTTTGCTGGCCTTTTG  
 30 CTCATGTTCTTTTCTGCGTTATCCCTGATTCTGTGGATAACCGTATTACCGCCTTTG  
 AGTGAGCTGATACCGCTCGCCGACGCCAAGACCGAGCGCAGCGAGTCAGTGAGCGAGG  
 AAGCGGAAGAGCGCCCAATACGCAAACCGCCTCTCCCGCGCGTTGGCCGATTCATTAAT  
 GCAGCTGGCAGCAGAGGTTTCCGACTGGAAAGCGGGCAGTGAGCGCAACGCAATTAATG  
 TGAGTTAGCTCACTCATTAGGCACCCAGGCTTTACACTTTATGCTTCCGGCTCGTATGT  
 35 TGTGTGGAATTGTGAGCGGATAACAATTTACACAGGAAACAGCTATGACCATGATTACG  
 CCAAGCTCGAAATTAACCCTCACTAAAGGGAACAAAAGCTGGAGCTCCACCGCGGTGGCG  
 GCCGCTCTAGAACTAGTGGATCCCCGGGCTGCAGGAATTCGATATCAAGCTTATCGATA  
 CCGTCGACCTCGAGGGGGGGCCCGGTACCCAATTTCGCCCTATAGTGAGTCGTATTACAAT  
 TCACTGGCCGTCGTTTTACAACGTCGTGACTGGGAAAACCCCTGGCGTTACCCAACCTAAT  
 40 CGCCTTGACGACATCCCCCTTTCGCCAGCTGGCGTAATAGCGAAGAGGCCCGCACCGAT  
 CGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGGCAAATTGTAAGCGTTAATATT  
 TTGTTAAAATTTCGCGTTAAATTTTGTAAATCAGCTCATTTTTTAACCAATAkGCCGAA  
 ATCGGCATAATCCCTTATAAATCAAAAGAATAkACCGrkATAkGGTTGAGTGTTGTCCA  
 GTTTGGAACAAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGCGAAAAACC  
 45 GTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCTAATCAAGTTTTTTGGGGTCG  
 AGGTGCCGTAAAGCACTAAATCGGAACCCCTAAAGGGAGCCCCCGATTTAGAGCTTGACGG  
 GGAAAGCCGGCGAACGTGGCGAGAAAGGAAGGAAGCGAAAGGAGCGGGCGCTAGG  
 GCGCTGGCAAGTGTAGCGGTCAcGCTGCGCGTAACCAACACACCCGCCGCTTAATGCG  
 CCGCTACAGGGCGCGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 318>:

**GNMDI14TR gnm\_318**

5 ACCTGCCTATGATTTGCTCTGCCACTTGGGCTTTGCCGTCAAAATGCGTGTGGGTGTGGT  
TGTCGATTTGTTTGTCCAATTCGTCAATCAGCCGGTCAAAATGGGCAATCAGTTGTTTGA  
CGCTTTCGACTTGCGTTTCATGAACCTAATGCAGACGGTTTTTCTCGGCAGTCCGCATAT  
CCACCAGTTGGTTGCGGCGGTTAACCAAGGCTTCCAACACTTCTTCCACTTCGGTGGGCA  
GGTGAAGGGCATTGTTTGCGAATCTGCCGTGCGTAACGTCACTAGAACTTTAATGGCG  
10 GTAACTAGAGCATGTTCCGAGTGGGAAGTACCGTTTTTACCGGTGAAACCTTGAACCAA  
TACTTTAGTGTCTTTATTAATCAATACGCTCATTCTTTCTCCTTAGGCGTTTACGGCTG  
CAACAATTTTTTCGGCTGCGTCATTGAGGCCGTCTGCAGAAAGTCAGTTTACAGACCTGATT  
CGTTCAGGATTTTCGCGCCGAGTTCGGCGTGTGTCCTTCCAAACGAACAACGACAGGAA  
CGTTGACGTTGATTTT

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 319>:

**gnm\_319**

CCGCTTTTGAAAAAGACGTTTTAAATGCAGATATCCCCGTCTGCTGGACTTTTGGGCTC  
CGTGGTGCGGCCCCGTGCAAAATGATTGCCCGATTTTGGACGACATTGCCGCCGAATTTG  
AAGGCCGTCTGAAAGTGGTCAAAATCAACATCGACGACAACGAAGCCACCCGTCCCGTT  
20 TCGGCGTGCGCGGCATTCCGACCCCTGATGGTGTCAAAAACGGCGAAGTCGTGCGCACCA  
AAGTCGGCGCATTGGCAAAAGGTCAGCTGACCGCCTTTGTGCAAGCCTCTATCGCCTGAT  
AAAGCGCAATCGAAAAAGCCGCCGGAAGATTCGGCGGCCTTTTTCGCACCCTTAAGATTT  
GTGGCGGATTTCCCGAGCACCTATGGATTTTTTTGTTGCGGAAATCTTCGGGAACGGATTG  
TTTGAAATGTCTTTGACGGCGTATTGTTCCGATACCAAGTCGTCTAAGACGAAGCTGCG  
25 CAGGTTGTTGAAAGTACAAAATGCCGTCTGAAGCGAGCAGCTTACCCGCGCCGTCAAT  
CAGCTTTTTGTGGTTCGCGCTGGATGTCGAGGATGTCGGACATTTTCTTGCTGTTGAAAA  
ACTGGGCGGGTCCATCACAATGAGGTGCAACCGCCTGCCTTCCCATATGCCGTCTGAAG  
ATATTGGAACACGTGCGCGCGGACGATTTTGTGTCGTTCCGTATCGATGCCGTTCATTC  
AAAATTGCGTTTCGCCCAATCAAGATATGTGTTGGACAAATCGACGGTTTCGCTGGATGC  
30 CGCGCCGCCGTGGCGGCATAGACGGTGAAGTCGCCGTGTAGGAAAACAGGTTTAAAAA  
ACGTTTGGCCGCCGCCGCTTTTCGCCGACTTTTTTGGCGGTGTTTCGATGATCAAAAAAAG  
CCCCGTATCCAAATACTTATCAAGGTTGACCCAAAACCTTGGCGCGCTTTTCGGTGATGAC  
GAAATCGTCGCCCCCCTTGCCGTTTCTCGTACTGCTGCAACCTTTTGGCGTTTCGCG  
GCGTTTGAGGCGGATTGTTTCGGGCGCAAAACCGGTAACGAAAGCGACGGCTTCCAAGAC  
35 TTCGGCAAGCCACGCTTCGTATTCTTCGGGCGCATCAGCCAGCCGGTATCGTATTCTTG  
AAGGTGGATTTCGATCGCCGTAAACATCGGCGGCAAGGGGAATTGGGGGATGTCGCGGTC  
GTAAATGCGCCAGGCTTCGATGCCGTTGCGTTTCGCCCATTTTCATAAGGTGTTTGATGTT  
TTTGCCCAAGCGGTTGGCAACGGTGTGATGTCGGTCATTGGTTTCAGGCGGAATAAAGT  
GGAAAACGGCAATTTTACTGTAATTAACGCCCGATTGCTTGACCGTTTCGGGCAAAACCTT  
40 ATACCATCCGTCGCTTATCTTGTATACGAAGCCATCGCCTTCCAACCTAAACGCCCTT  
ACGGGCGCGTTTCTTCTGTTGCTTTGATTTTGCAAAGCATATCTGTGCAGGTTGCCGTG  
ATGTAAACCACAAGCAAGCCGCTTGCAGACAACCTGTAACCTCACATTCCCCGTATCGTT  
ACCTTCCCTGCTTCAGGCCGTCTGAACCTTTCGGACGCGGGCGTTGTTGTCTTCCAAGG  
ATAGCCATGTCTATTAAATTTGCCGATTGAACTTGATAAAAAACATTTGTCCGCCGTC  
45 AGCAGCGAGGGTTACGAAAGCCCCGACGCGGATTGAGGCGCAAGCCATTCCGTTTGCTTTG  
GAAGGCCGCGACATCATGGCTTCGGCGCAAAACCGGCTCCGGCAAAACCGCCGCCTTTCTG  
TTACCGACTTTGCAAAAACCTGACCAACGCAGCGAAAAACCGGGCAAAAGGCCCGCGTGCT  
TTGGTATTGACCCCGACCCGCACTGGCGGCTCAAGTCGAGAAAAACGCGCTGGCGTAT  
GCCAAAAATATGCGTTGGTTCCGACCGTCAGCATCGTCGGCGGCGCGCTTTTCGGCTAC  
50 CAAACCCGTGCCCTGAGCAACCGGTCGATCTGATTGTCGCCACGCCGGGCGCTCTGATG



GACCTGATGCAAAGCGGCAAAGTTGATTTTGAACGTTTGGAAGTGCTGATTTTGGACGAA  
 GCCGACCGTATGTTGGATATGGGCTTTATCGACGACATCGAAACCATCGTGGAAGCAACG  
 CCGAGCGACCGTCAGACTTTGTTGTTCTCCGCCACTTGGGACGGCGCGGTGCGCAAACG  
 GCGCGCAAACGACCAAAGACCCTGAAATCATCGAAGTCCAACGCGTGACGATCAAGGC  
 5 AAAATCGAAGAACAACCTGCTGTACTGCGACGATATGCGCCACAAAAACCGCCTGCTCGAT  
 CATATCTTGC GCGATGCCAATATCGATCAATGCGTGATTTTCACGTCCACCAAAGCCATG  
 ACCGAAGTCATTGCGGATGAACTGTACGAAAAAGGTTTCGCCGCAAACCTGCCTGCACGGC  
 GATATGCCGCAAGGCTGGCGCAACCGCACGCTGATGGATTGCGTAAAGGCCGCTGCAAA  
 10 ATTTTGGTTGCCACCGATGTTGCCGACGCGGTATCGACGTACCGACCATTACCCACGTT  
 ATCAACTACGACCTGCCGAAACAGGCGGAAGACTACGTCCACCGCATCGGGCGCACCGGC  
 CGCGCAGGCGCACGGGTATTGCGATTACGTTTGC CGAAGTGAACGAATACGTCAAAGTC  
 CACAAAATCGAAAAATACATTAACCGAAAACCTGCCGAACTGACCATCGAAGGCATGGAA  
 CCGACCCGCAAACGCAAATCCGCGAGGCGCAAGCCGAAAGGCAAAGGCCGCTGGGGCGAT  
 CGTAAATCCGGCGGTTGGCGCGGCGATCATAAACCGAGCAAAGAGGCTTCGGCGGCAAA  
 15 ACGCGCGGCGAAGGTTTCAAGAAAGAAGGCTTTAAGAGAGACGGTTTCAAAAAAACCGGC  
 GAAGGCTTCAAAGGCAAACGCAAAGCCGGCGATTCTTTGCAGGCAAAGGCGAACGCCGT  
 TACAAAGACCGCTAAGCCCCAACCTGCCGCATAAACCAATGCCGTCTGAAACCGATTTCG  
 AGTTTCAGACGCGATTTTTCGAATGTTTCAGCACCGCCCGGCTTTGATACCCAAAGGATT  
 AGGCTGTAAATAAAAAACCCCTTTTCCGCTTTGGCAACGATTGAAAATTTCCGTAAATTCAA  
 20 TATCTAGATTCCCTTCTGCACGGGAATGACACGGAAGGGTTTCAGATGCAGGGTGGGCAT  
 TCCTGCCCCACCAATCCCGCCCTTGCAACGGTGGGCAAGAATGCTCGCCCTACGGCTTGA  
 CTGTTTCGATATGATGCCGTCTGAAAACCAACGGCGGCATGACAATGCCACCCTGCCAAC  
 GCACGTAAATCAGAATTGCCATCCCGACATCAAACGCTTGGAAACAAAATGCCGTCTGAA  
 AATCAAACGGCAACATAACAATGTCCCTAACAAATGCAAAAATGCCGTCTGAAAGCTCTT  
 25 CAGACGGCATTGGCGCGCGCGGGTTTACCGCCTCCTGCCGAAACCGCGCATAGCGGGGCGG  
 CGGTAATTGGCGGGCGGGCGCGTTGTGCGGCGGTAACGCTGCGCCTGCGCCGCTGTTGT  
 TTTGCACGGAGGCTGCGCGTGTTCAAATCCCTGCTGGTGCGCGCATTGGGGCGTGCGGAC  
 TGATGGTAGGCTGCACGCGCGCGCGGGGCGACGGGACTGTCTTGGTTGCCTGCCCGTGTG  
 AATTTGTTTGCCAGCGCGTTGCCGATAAACGCGCCTGCCGCCGCGCGACCGAGGCTTTGC  
 30 AGCAGCCAGCTTCTGTGATTGGTCGTAAATATACTGCTGCCCGTCTTTACCGGTAACG  
 GGTTGCCCCGTGTTGCCGTTTGCTGTGCTTCGGCAGGAATGGTGTCTTTGACTGCTTCG  
 GGAGTCAGTTGGTAAACCGTATCGTCTGCCTGCTGTGCGAGCTGCTGTTGCAGGGCTTCA  
 ATCTGTTTCTGCTGCTGTTTCGAGCCG

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 320>:

#### GNMDI61TF gnm\_320

CACCTGCACGCACAATTCGTGTTTCCAACGTTTTGCCGATAAAGGGCATGATTTCCGGAGT  
 GTTCGCCGCGATTACCATCGCAATTTCTGCAGACCGGCGATTCTTCAATGAAACGAA  
 CGCAACGGGTGCA

40

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 321>:

#### GNMDI91TR gnm\_321

TCGCGCACGATGATGGGGGGCAGTTCTACGGAGATAGGGTTGCCTTCGTAGAACGTTACT  
 ATCGCATTTGGTCGTCCATGCCGTCAACGATGAAGTTCAACGCGATCGGGACGCTTAAAGA  
 45 CGGTTTGGCATCGCGTGTCCCGCCTCCGATTCTGGAGTTGGGCAACGGTTCCGGTCT  
 GAGCATCAACCTGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 322>:

**gnm\_322**

CAAAAAGTGTACGTACAGCTAGTTTGCAGACCCGATGTACGTCTTTATGGACGAAGAATT  
CAACCAATATGAAATCGAAGTTGACAACATTGGCGATCATTTTAATTTATCGGGTATAGA  
CTATTTTCGGCGAGGACGAAGATATAGATTTCCACGATTGAATACATGGAAGCCAAGTACG  
5 TCTATCAACACTATATTTAAACACAGCCTTTTATTTTGAGGTTTGGGGTAATTTTAAAC  
CGTCATTCTTACGAAAACAGAAAATCAAAAACAGAAATCTCAAATCCCGTCATTCCyGCG  
CAGGyGAGAATCTAGACATTCAATGCTAAGGCAATTTCTCGGAAATGACTGAAACTCAAA  
AAACTGGATTCCCACTTTTCGTGGGAATGACGGAATGTAGGTTTCGTGCGAATGACGTGGTG  
CAGGTTTCCGTATGGATGGATTTCGTCAATCCCGCGCAGGCGGGAATCTAGACATTCAATG  
10 CTAAGGCAATTTATCGGGAATGACTGAAACTCAAAAAGTGGATTCCCACTTTTCGTGGGA  
ATGACGCGATTAGAGTTTCAAAATTTATTCTAAATAGCTGAAACTCAACGCACTGGATTTC  
CCGCCTGCGCGGGAATGACGAAGTGGAAGTTACCCGAACTTAAACAAGCGAAACCGAA  
CGAACTGGATTCCCACTTTTCGTGGGAATGACGGAATGCAGGTTTCGTGGGAATGACGGAAT  
GCAGGTTTCGTGGGAATGACGG

15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 323>:

**GNMDI95TR gnm\_323**

TCCACACAACGTCAATAATTCCAACACAAAATACGCCAACCGCATTTGGTTTGACACGCCA  
GCAACCGCTTTTGTCTTCAACAGTGATATTGTGTTGGCTTTTCCGTTTAAAGATTGTG  
20 TGTAAATGGCGGACAAAGCACCGAGGAAGGCGAAGAAATTTATTTTAAACGCAATAACA  
GCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGACA  
GTCAACCAGCCAGACAGCCACTTATAACAAGGCGAAGACAGCAAAAACTGCCCCGAAATG  
AGCGAAGGCGACAAATTGCCCCGTGGACAACTCTACGGCGAACAACACTTTACCACTCCG  
CCGCCACGCTACAACGAAGCCACGCTGGTTAAAGCCC

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 324>:

**gnm\_324**

CGCGATAAAGAGCACGTTCCGGTTTCGATTTACTTAGTTAACGGTATCAAATTACAAGGT  
CAGGTTGAGTCTTTTCGATCAATACGTTGTTCTCTGAGAAACACTTCCGTCACCCAAATG  
30 GTTACAAAACACGCCATTTCCACCATCGTACCGGCACGCTCCGTCAACCTACAACATGAA  
AACAGACCCCAAGCCGCACCGACTTCGACCCTCGTCCAAGTGGAACCGTCCAGCAGCCT  
CCGGAATAATCCGCACGAAGCATGACGTGTCATATCTTTCAATACCTTACCGGACAACGG  
TAAGGTATTTTTATTTTCAGACAGCATTAAAAATGTTATTGCAAAACATCCTTCCATTC  
GCCATTGCCTTTTTCGGAAGGCACTTCCCGAAGGTGGCAATGCTTTGGACGGCACCGCC  
35 GGCAACGGACACGACACCCCTTTTCCTCGCACAAACCGCAGGCATCCGGGGGAAAGTGTGG  
GCATTTCGACATCCAGCCGCAAGCCCTGAACAACACCCGATGCCGTCTGCAGGAAGCAGGT  
TACAGCAATGTACGGCTCATCTTGGACGGACATGAAAACCTGAAGCAATATATTCCAAAG  
CCGCTGGATGCAGCCATTTTCAATTTTCGGCTGGCTGCCCGGCGGGGACAAAAGCCTTACC  
ACCCGCACGGAAACAGCATTGCCGCCCTTTCTGCCACCTTATCCCTACTGAAAGAAAAC  
40 GGTATGCTTATTGCCGTCTCTATCCGGGACACGAAAACGGCAAACAGGAGGCAGAAGCA  
ATCGAACAATGGGCAAAAACCTGCCTCAAGAACAGTTGCCGTTTTGCGTTACGGCTTT  
ACCAACCGGAAACAGCCACCCCTATCTTTTGGTATTTGAAAACTGCGTCAAAAATAA  
CTGTTTTCGGTAAATAAGC

45 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 325>:

**gnm\_325**

TTGGAAGCCTTCTGCAAAGGTCAGGACACGCTTGCGGGCATTGCTGAAGACGAGCCGACC  
 GGATGCCGGTCGGTTCGTGTCGCTGAACAATACCTGTGTGCGCGTGGCATAACCCGAAAGCC  
 TTGGGCGCGCTGCGTGTGACAACGCCGTCGTGATTACTTCTCCGCGTTTTACGAGCGTT  
 5 CATCAGGTCGCACTCAACCAGTGCATCAAAAAATACGGCGTACAGGGACAATGCGGCTTG  
 GAAACAGTGTATTGCACATCTTCTTCTTATTACGGCGGAACGTGTGCGCTCTTTGATTCAA  
 AATCTCAAATAAAACGGAAAATGCCGTCTGAAAGATGTTTACAGACGGCATTTCTATATCGA  
 CGGTACAGGATTCTTTTCGGATCGGGCAGCAGGCTGTTCAACATAATGGCAAGTACGGCGCA  
 CAAGCCCACGCCGGCAAAGCTGAAGCTGCCCAATTTGAGCGTCATGCCGCCGATGCCCGT  
 10 GGTACAGTACCGAGCTGACGATGACCAGGTTTTTCGGCAGCATCAAATCGACTTTGGCATC  
 AATCAGCGTTTTTCACGCCCAAAGAAGCAATCGTGCCGAACAGCAGCAGCATAATGCCGCC  
 CATTACTGGCATCGGAATGGAAGCCAAAACGCATTGAATTTGCCGAAAAACGCCATGCA  
 GACGGCAAAAACCGCCGCCCAAGTCATGATGACGGGGTTGCTGTTTTTGGTAATCATCAC  
 CGCACCCGTTACTTCGCCGTAGGTCGTAACCGGGCGGGCCGCCGATCAGACCCGCAACGCA  
 15 TACGCCCAAACCGTCGCCTGCAAGGTTTTGTCCAAGCCGGGTCTTTCGTATAGTCTTT  
 CCCCCTCACATTGCCGATTGCCATGATGCCGCCGATGTGTTTCGATGGCGGGGGCGACGGC  
 AACGGGCAGCATAAACAGTGCAGCTGCCAGTTGATCTGAGGCGTTTTCAAATGGGGAAC  
 GGCGAACCCAGGGCGCGTGTGCAATGCTTGCCGTGTCCACCAGTCCCATCAGCAGTGCCAA  
 AACATAACCCGAAGCGACACCGATCAAGATGGGAATCAGCTTCATCATCTGCTGCCGAA  
 20 AACCAGATACGATGGCGGTAACGGCAAAGGTAAAGCCGGAAGATCAGCGAATCGGTATAG  
 TCGATGACCTGTTTGCCGTCCGCTGACnCATTGCCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 326>:

**gnm\_326**

25 AAAAAATTGGGTGGTTTTTACCAAAAwTTTAAGGGGAATTTTAACAAATTATTAACGCTTAC  
 AATTTGCCATTTCGCCATTACAGCTGCGCAACTGTTGGGAAGGGCGATCGGTGCGGGCCTC  
 TTCGCTATTACGCCAGCTGGCGAAAGGGGGATGTGCTGCAAGGCGATTAAGTTGGGTAAC  
 GCCAGGGTTTTTCCAGTCACGACGTTGTAAAACGACGGCCAGTGAATTGTAATACGACTC  
 ACTATAGGGCGAATTGGGTACGGGGCCCCCTmGAGGTGACGGTATCGATAAGCTTGA  
 30 TATCGAATTCTTGCAGCCCCGGGGATCCACTAGTTsTAGAGCGGCCGCCACCGCGGTGGA  
 GCTACCAGCTTTTGATTACCTTATAGTGACGGGTAAATT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 327>:

**gnm\_327**

35 TTGAAGAAATATGCAGGGGAGGGTATATGCGGATTTTTACTTTTACGCTTAATGTGTmTCA  
 AATCGGGTGTGGGGTATGTATAGTGGATTAAATTTAAACAGTACGGCGTTGCCTCGCCT  
 TGCCGTACTATTTGTACTGTCTGCGGCTTCGTGCGcCTTGTCTGATTTyTGTTAATCCAC  
 TATAAAAAGCCGCATCGTGAAAAGATGCGGCTTCAGGTATCGGTTGGATTATCTTCAGA  
 ACCGGTGTAAGGACGGATGCTGACAGTTTTACGGTTCAGCGCGCCTTTGGTTTTGAATTC  
 40 GACATAACCGTCAACTTTGGCGAACAAGTGTGGTCTTTGCCCATACCTACGTTGTCGCC  
 TGCGTGGAATTTGGTACCGCGTTGGCGTACGATGATGGAACCTGCGGGAATCAGCTCGTT  
 GCCGTAGGCTTTAACGCCCAAGCGTTTGGCTTCTGAATCGCGACCGTTGCGGGTGCTGCC  
 GCCTGCTTTTTTACTTGCCATTTGTAATGCTCCTAAGTTTTAAGGTTAGGCGATTGCCAC  
 GATTTTCGATTTGGGTGAAATTTTGGCGGTGGCCTTGGCGTTTTTGGTAGTGTTTGCGGCG  
 45 GCGCATTTTGAAGATGCGGACTTTTTCGCCACGACCGTGTGCCACTACTTTAGCCGTTAC  
 TTTTGCACCTTCGATAAAGGGTGCGCCAACTTTACAGATTGCCCGTCAGCAATCATCAA  
 AACTTCGGTCAGTTCGATTTGGCTGTGAGTTCGGCTGGTATCTGTTCTACTTTCAATTT  
 TTCGCCGACGGAACTTTATACTGTTTGCCGCCGGTTTTTACGACCGGTACATACTCAA  
 CTCCATAAGGGTTATGGTTAATATCCnGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 328>:

**gnm\_328**

5 GTAAGATTACCGTCTGGAAGACTGGGGTCGCCGCCAGCTGGCTTACCCGATTAACAAAA  
TCCATAAAGCCCATTACGTTTTGATGAACATCGAAACCACTCCCGAAGTGGTTGAAGAGC  
TGGAAACCGCATTCCGCTTCAATGATGCATATTGCGTCATCTGACCATCAAACCAAAC  
ACGCCGTTACCGAAGCATCCCTATGTTGGGTGGTGAAAAGGCTAAGAACCTGTTGAGCG  
GTGCGTCTGAAGAAGCGGTCGCCCAATAATTGGGATTCAATAATCTTGTTCGCTTGCCG  
10 CGTTAATTGAAAAGGTTTTCCCTATTCGATATACGCCTGCCGGAATCCCTGTTTTAGATA  
TTATTTTAAAGCACGAATCGTGGCAGGAGGAAAACGGGCAGCAATGCCTTGTCCAATTGG  
AAATTCGGCACGGATTTTAGGCAGGCAGGCGGAAGAGTGGCAGTATCGGCAAGGTGTAT  
ATGTTACGTCGAAGGTTTTTAGCTCAAAAAGCAGACGTTCCCTTATGCCGATGCTCA  
GGATAAAAAATATTCAAGAATATAAAGGTTAAACGACAATGGCTCGTCAATCATTCAAAC  
GTAGAAAATTCTGCCGTTTCACGGCTGAAAAAATCCAAGAAGTCGATTACAAACAAGTTG  
15 ATTTGCTGAAAGACTTCATCTCCGAAAACGGTAAAAATCATTCTGCACGCATCACAGGAA  
CGAAGGCATTCTACCAACGCCAATTGGCTGTTGCCGTAAAACGCGCACGCTTCCTGGCTC  
TGCTGCCTTACACCGACCAACACAAATAATTTTGGAGATTGAATCATGCAAATTATTCTG  
TTAGAAAAAATCGGCGGCTCGGGCAACTTGGGCGACATCGTAACCGTTAAAAACGGCTAC  
GCCCAGCACTTTCTAATTCGCGCAGGTAAGGCAAAACGTGCGACCGAAGCGAATATGAAA  
20 GAGTTTGAAGCACGCCGCGCAGAACTGGAAGCCAAACAGGCTGAAATTTTGGCAGATGCC  
CGAGTCCGTCAGGAAAAATTGGACGGTCAAACCGTTACCGTTGCTCAAAAAGCTGGTGTG  
GACGGTCGCCTGTTTCGGTTCCGTTACCAATGCCGACATTGCTGCTGCAATCGTTGCTGCC  
GGCATCGAAGCCGTGAAAGCAAATGTACGCTCTGCCGAACGGTCCTCTGAAAGCCGTTGGC  
GAGTACGAATGGAAGTGGCTTTGCA

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 329>:

**GNMDN42TR gnm\_329**

30 GGAGCGATGTAGCCCCATTCCGGCAGGACGGTCGTCATACCGGCGTTGCCGCCCCGCTGT  
ATATCGCGTTCGCGTCGCCGACGTAGAGTGTGTGTTGCGGGTCGGCGTGGATTTGTCCG  
CACGCATACAGCATGGGCTTTGACGCTGGGCTTGGGCTCGCCGACGGTGTGCGCGCTGACG  
ACGACGGCGGGTGGGATGATGAAGCCGAGTTTGGGGACGAGTTTGTGCGTGAAGCGCATG  
GGTTTGTGGTGATGATGCCCCATTTGATGCCGCGTTTTCCGAGTTCGGCGATGAGTTG  
TTTACGCCGTCGAAGAGGGTGGTGTCTTGGGCGTAGCGGCTGTGTAATCCGCAAGGGAA  
TCCGGTGCAGCAATCGGGCATACTCGGGATGGTGGGGGTGATGCCTGCGCCGAGCTTGAT  
35 CAGTCCTGCCGCGCCGTGGCTGGCTTGGGTGCGGATTTCTGTCATGCTTTTTCAGGTAG  
TCCGTGGCGGGCGAGCAAGGTGTTGAGTGCGCCGCCGAGGTCTAAGCGGGTGTGCGCGAG  
CGTGCCATC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 330>:

40 **gnm\_330**

ACGAGCCGAGCAACCATTTGnGATATCGACGCGATGAATCCGGCGGCAAGGTTTGCCTGA  
TAGCAGACGAACACAGCCGACATCAAGCTGTCCGCTTGAGGCGAGTCCGCGCGAATAG  
CTGTAGGCGCGCGGAAGAGGCGGTGTTTTTGGAGGAATTCGGGATCGCGCGGATTCCGCC  
AGGCGTATATGGCTGTCTTTGGGCGTGATATCACCTCGGGCTCTTTGGCAAAATCCGGT  
45 TGGTTCGGCTTCTTTTTTGGCGTCCATCGGCGCACCGCTGTATTTGCGCCGCCGAAAATG  
TCGGTTTGTCTTGAAGCGGCGTCTGTCCAAAACCTCGACAAAGTGGCGGATAAGGCGG  
ACTGCCTGATAGCTGCCGTTTTTCGCCCACTCCGTTTCGTCGAGGCTGTTGGCGGCCACC

CCGTCCACAAAACCTCGTCGGCAGTTTTGGGATCGGAACTTTGGGGTTGCCCGTGCCG  
 TCCCTGAAGCCCAACAGGTTGCGCGCCGCCATCGCGCCGGGTTCCGATTGGGCTGCCAC  
 CCGTCGATACTCCAACGGATAACGGCGGTTTGGACGGTGTGTTGATGATGTCGCGCAGG  
 CGGCTTGGCAGGTTTCGGGGGTGAAGGCACAGATTTGCAGGCTCAAATCGCCGTCGCACC  
 5 AGCTTTTTTGCAGCTTATCGTTGGAGAAGTCGCGCATTTCTGCAAATGAATCGGTTTTT  
 TGTCTTTGAGTCCGAACCGGCCGTCAAACAGGCTGCTGCCACCCCCACGGTAACGGTCA  
 ACCCGTCGGGGTTGAAGGCTTTGCCCAAATGCCGCTGCCGGCTGGCGGAAGTTTGTCTG  
 CGCCGCTTGGTAATCGCCGCCCTTGGTGAGAACTCGATGCGGGCGGT

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 331>:

#### GNMDO70R gnm\_331

AAAAACCAGGTTTGGCATCCTCCAATAAAGAAGCGCGCGGCTTTGCAAACCAGCCCAAG  
 GTAAAGGGGAATGGGCAATATTCAACAATAAAGGACAAAGACAGGGAACGCAAATTTATC  
 TATAATAAAAGCGGCCCGGGTGGAGGCTCTGTCTTTTCGACAATACCGATACCCTGTG  
 15 TCCCGACAAAGCGGTACTGCCGTTTTTGGCACAGCCACCTACCTGCCGCCCTACGGCAAG  
 GTTCCGGTTTTGATGCCGACGGGCTGAAAGAGCGCGCAATGCCGTTAATTGGATTTCAT  
 ACGACCCACCCAGGTTGATAGGCTACAGCTACACCAAGTGTGCTATGCAGAGACAGCACA  
 GGCTGTCCCAAACTTGTGCTATAAAACCCGATTTTCTTCGACAACACCGGTTTGGCAAA  
 AAATGCGGGCAGCCTGGATAGGCACCCGACCCAAGCCGCGAAAATTTCGCCATTTACAA  
 20 ATTGAAGGATCATCCATGGTTGGGCGTGTCTTCAATTGGGCAGCGAGAATACCGTCAA  
 AAATGGCAACTCATTCAACAAATTGATATCTTCTTTTAGTGAAGACAATAATAATC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 332>:

#### gnm\_332

GCCGGCGCGGGAAGAGGCGTTTTCAAAGTTCAAATGGAAACGTTGCCGcTkCAAawAmAG  
 CrAkTGTACACCGTCAAAAACGTATAGTGGATTAAACAAAAATCAGGACAAGGCGACGAAG  
 CCGCAGACAGTACAAATAGTACGGAACCGATTCACTTGGTGCTTCAGCACcTTAGAGAAT  
 CGTTCTCTTTGAGCTAAGGCGAGGTAACGCCGTAAGTGGTTTTTGTAAATCCACTATAACG  
 CAAGCACCGCAAAGCCGCGCCAACCTCTCCCAACCTTTTTTCAGACGGCATTTCGGTA  
 30 ATCTGCTAAAATCGCCCGCTTGAGTTTCCACAGAAAAATCCGAAAAATGAATATTTTTTA  
 CGAAGAGTCCGGCCAATTCAAAATCGCCGCCATCATCAAAAAAACGATGCCACCTACCA  
 AGTCGATACCCACACGGCAAACGCACCAAAGTGAAGGCGAACAACGTCTTTGCCGAGTT  
 TGACGGCGATATGGCGGCGTTTTTGGAAAACGCGCAGGCACAGGCGGCGGACATCGACAC  
 CGATTTATTGTGGGAAGTATGCGGCGAAGAGGAATTTACCGCCGAAGCCATCGCCGAAGA  
 35 ATATTACGGCCATGCGCCGACCAAAACCGAGCTGGCGGCAACTTTGATTGCGCTTTACGC  
 CGCGCCGATGTATTTCTACAAAAAGCCAAAGGCGTGTTCAAAGCCGCGCCGGAAGAAAC  
 TTAAAACAAGCACTTGCCGCCATCGAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 333>:

#### 40 gnm\_333

TGGGCAGAGAATTGTGTTTCATGTCTGGCATTGATTTTCTGTCCCATTATCATCGTCGT  
 TAAAAGAGTATTTCCCATTTTGACGTGGTTCGTAGAATACTGAATGGGTATACTCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 334>:

**GNMDQ93TF gnm\_334**

CCCCGTAAGAAGAAGGCCAAAAGCGATTTACAGATCAAATGGCAGCAGAATAAACCCATAC  
GGTTTCAGTATCGGTATAGATGATGCGGGCGGCCAAAACGACCGGCCAAATATCAAGGAAATG  
TCGCTTTTATCGTTCGATAACCCCTTTGGGCTTAAGCGATTTGTTTATGTTTCATATGGAC  
5 GCGGTTTGGCGCACAAAACGGACTTGACTGATGTGTGGACGACTTAACTGAAAGCGGGT  
CCAGAAGTTACAGCGTGCATTATTTCGGTGCCCGTAAAAAATGGCTGTTTTCTTTTAATC  
ACAATGGACATCGTTACCACGAAGCAACCGAAGGCTATTCCGTCAATTACGATTACAACG  
GCAAACAATATCAGAGCAGCCTGGCCGCCGAGCGCATGCTTTGGCGTAACAGACTTCATA  
AAACTTCAGTCGGAATGAAATTATGGACACGCCAAACCTATAAATACATCGACGATGCCG  
10 AGATCGAAGTACAACGCCGCCGCTCTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 335>:

**gnm\_335**

CCTGAAACGCTGGAAGCCAAAATGCTGACCGGCCAAATCCGGTTACGATTTGGTCGTGCCG  
15 GGCATCGCCTTCCTGCCGCGCCAAATCGAGGCGGGCGCGTATCAAAAAGTCAACAAAGAC  
CTGATTCCCAACTATAAAAACATCGATCCCGAACTCTTGAAAATGCTGGAAACCGCCGAC  
CCGGGCAACCAGTATGCCGTCCCTATTTCTCCGGCGTGAACACGATTGCGATTACGGCG  
AAGGGCAAAGAGCTTTTGGGCGCAAGCTGCCCGAAAACGGCTGGGATTTGCTGTTCAAA  
CCCGAATACACCCACAAGCTGAAATCCTGCGGCATCGCCCTGTGGGACACCCCGAGTGAA  
20 ATGTTCCCGATTTTGTGTAACACTTGGGCAAAGACCCCAAAGGCTCGAATCCTGAAGAC  
TTGAAGGCGGCGCGCGGAAGTGTTGAAGTCTATCCGTCCGGATGTCAAACGTTTCAGCCCG  
TCCATCATCGACGAGCTGGCACGCGGCGACATCTGCCTGGCGGCAGGCAACGGCGCGGAT  
TTGAACTTGGCGAAAGCACGTTCCGAGGAAGTGA AAAACAACGTCGGCATCGAAGTGCTG  
ACACCGAAAGGTATGGGCTTCTGGATTGAGTCTTGGCTGATTCCCGCCGATGCGAAAAAC  
25 GTCGCCAATGCCCCACAAATACATCAACTACACGCTCGACCCCGAAATCGCGGCGAAAAAC  
GGCATCGCCGTAAACCTTTGCCCCGCCAGCAAACCGGCGCGCGAAAAAATGCCTGCCGAG  
CTGGTGAACACCCGTTCCATCTTCCCGAACGAGCAGGATATGAAAGACGGTTTCGTGATG  
CCGCAAAATGAGCACGGATGCGAAAAAATGTCTGTGAGCCTGTGGCAGAAAAATCAAAGTC  
GGCACCAACTGATTTGAAGCATTAAAAATGCCGTCCGAACGATGTTCCGACGGCATTTTTA  
30 TATTGGATTGAAATAGAAATATTATATAGTGGATTAACAAAAATCAGGACAAGGCGACA  
AAGCCGCAGACAGTACAAATAGTACGGAACCGATTCACTTGGTGCTTCAGCACCTTAGAG  
AATCGTTCTCTTTGAGCTAAGGCGAGCCAACGCCGTACTGGTTTTTTGTTAATCCACTATA  
CCGTCGTTCCACGGTCAGGATTTAGATTGCGGACATCTGTGAGAAAAGACAAAAAAC  
TTCCGCCGTCAATCCCTACAGGCGAGAATCCGATCCGTTGAAATTGCGTTGTTTTAAATA  
35 AATTCTTGACGCTTTGATTTTCTGTTTTTCCGATAACGCCGTAACCTTGAAACGCGAAAG  
CGGTAATCCGATCCGTTGGGATTTTGCAACTTCAAATCAATCCGCAAACCTGAAATCCCGT  
CATTCGCCGCGAGTCGTGAATCCGAACGCTCCGCACGAAAACCTGCATCCCGTCATTCC  
CACGGAAGTGGGAATCTAGGACGTAAAATCTCAAGAAACCGTTTTATCCGATAAGTTTCC  
GCACCGACAGACCTGGATTCCCGCCTGCGCGGAATGACGAAATTTGCGGAGCCGTTAGG  
40 GTGGGCTGTAAGGTCGGCGTCCAGCCCGAAATGTTTGCGGTTGCCCGCTTCGGCGCGGAC  
TTCAAACAATGGCTTGCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 336>:

**GNMDS61TR gnm\_336**

CTTAGATCTCATACCATGTCATTGTGACTTACCCTCCAGGAAGCTTCCTCACTCTGAGAA  
45 GGCCCCATTATTTGTTTTTTCCAAGATGCTGACTGGTAAATATTTCTAGGAAAAAATAGA  
AATGATTCTACTTTGTTGTCTATAAATTCATCGTCCTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 337>:

**GNMDV66R gnm\_337**

5 CTTCAGGGTACTTTGAATTTTTTTTCAATATATCTGCCATATGTTTTTGTAGCCGAATT  
TTTAGGAATACCAACCAACGCCAGGAGTATAAAAATGATTGAACTTCAACTTCATGAATT  
GAAGCTGGTTTCAGGGGGAGGTCCTGTAACAGACAATATAGCTGGAAATGTAGCTAATGC  
TGCCACAACCAAGGAGGTCCCACATGGGGGGATTGGTTGCAATACCTGCTGCCGCAGC  
GGCAGTTTATTATCTGCCGAAAAATGCTTACGGTGCTGCTGGTGCAAATGCTGTATACAA  
TGTGACTCGTAATTGGGTAAATGATGCCGTTAATGCACCTCCTTATAACGGAAGACCAAT  
10 CTTTGAGATTGAACATGGATTAACTGCTCCGCAACAAAGCAGATAAATCAGGGAACGG  
CTACACTGACGGTACAGATTACTGCTGATATTCTCATCGTCCAGACAATCTCTAGGGGT  
CGTCTGAAACTTTCTTAACTTCAATTTTATGAATAGACCCAAGCAACCCCTTCTTCCGTCC  
CGAAGTCGCCGTTGCCCGCCAAACCAGCCTTTTTTTTTTTTTTTTTTTTTT

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 338>:

**GNMDW68F gnm\_338**

CCGCCGGATTTTCTCCTCTTTTAATATAGTAAAATTCATGACCCCTATGGGATTTTCAGG  
AATATGTCTTTTATCTTCATAAGCCTCGTATTCAGGATAGGCAGATGGCATTTTTTTAAC  
20 CCCGTAAGTGAGCAATCTTTCTCCCATAGTCGTGCTTAACTACACGCATCTTTTCGGAT  
AACAATATCGTCCACGCTATCCAAACCGTCGCGTAGAAATTGGATAAAGTGCCTTTGTT  
TTGCTGGATGTATGGCTCGAGCACCCAGCCTTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 339>:

**GNMDZ09R gnm\_339**

25 TGGAGTACCCGCAGAAGAAATCTGGGCATTGCCATTTCAACATATCGCCGCCGGCTTTTCG  
CGCTATACCACATAAAGGGCAGGGACGCGGCAAGCAGCCAGTGGAAGGGCGGGTGGGGA  
TGTCCCAGACTTTGGTTTTGTTTTTCATAATCGGTTTCCGGCGGTAGAATCGGTTTGT  
TCGAGCCTTATTTAACCGATTGGAGGGGCAATGTTTCCCGTTTTTCATCTTTCATGCGA  
GAGCCGCCGCCAGATGCTTCAGACGGCATTGCGTTTTTCCCATGTGTTCAAAGCCCGTGC  
30 GGAAGATTCCGACATAGGGACTTTCGGCACGCTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 340>:

**GNMEB54TFB gnm\_340**

35 CCTGCCCGGTGCTGGAAGGTTAATTGAAGATGTGAGAGCATCGGATCGAAGCCCCAGTAA  
ACGGCGGGCGTAACATAACGGTCCTAAGGTAACGAAATTCCTTGTCGGGTAAGTTCCGA  
CCCGCACGAATGGCGTAACGATGGCCACACTGTCTCCTCCTGAGACTCAGCGAAGTTGAA  
GTGGTTGTGAAGATGCAGTCTACCCGCTGCTAGACGGCAAGACCCCGTGAACCTTTACTG  
TAGCTTTGCATTGGACTTTGAAGTCACTTGTGTACAGATACGTGGGAGGCTTAGAAGCAG  
AGACACCACTCTCTGTGGAGCCGTCCTTGAAATACCACCCTGGTGTCTTTGAGGTTCTAA  
40 CCCAGACCCGTCATCCGGGTCGGGACAGTGCAAGGTAGGCATTTTACTGGGGCGGTCT  
CCTCTCAAAGCGTAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 341>:

**gnm\_341**

5 CTCGGTACCCGAGCATTACGAATTCGAGCTCGGTACCCTGCGACAGGGCGGCAATCAGGC  
GGTTGCGGCGCGGAAAATTGCCGGCATACGGCCGCGTGCCGATGGGGAATCGCTGACAA  
TCAATCCTTTTTTCGGCGATTTTCATAGGCAAGGTTTTTGTGACCGGCGGATAAATGCGGT  
CTATGCCCCGTCCCCACACGGCGATGGTGCCGCTTCTGCCTGCAACGCACCCTGATGGG  
CGGCGGTATCGATGCCCAAGCCATACCCGACACAACGGGAATGCCTTTCCCACCCAACG  
10 ACTTGCCGAAATCTTTGGCAATCCGCATCGCCTGCGGCGTGCCATGACGGCTGCCGACGA  
TGGCGGCGGAAGGTTTGTGTCAGCAGTTGCACGTTGCCGCGCAAAAACAAAACCGGTGGCG  
CGGTACAGCCCTGCGTCAGCATTTCGGGAAAATCTTCATCCTGAAGCAGCATCAGGCGGC  
ATCCGTCaCGCATTTcCnATTCCAATGCCGCTTCTGCCGCTGCCGCGCCAGAGCGCGTT  
TTTCCGCATTGCGCCAAGCCTCAAGCGCTGTTTGTGCCGTATCAGTGCCGCCAACTGTT  
CGCCCGGTGCGGACAAGGC  
15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 342>:

**gnm\_342**

AAAATCAGAAAAGCCTTGGCGGGCTTTTGAAGGCACTGCCCCACCTTAACGACACCATG  
CTGCTGTTTACGGGATTGTGGCTGATGAAAATTACCCATTTCTCCCCGTTCAACGCGCCT  
20 TGGCTCGGTACAAAAATCCTGCTTCTGCTCGCCTATATCGCATTGGGTATGATGATGATG  
CGCGCCCGTCCGCGTTCGACCAAGTTCTACACCGTTTACCCTGCTCGCCATGTGTTGCGTC  
GCCTGCATCGTTTACCTTGCCAAAACCAAAGTCTGCCTTCTGAAACACCGTTATGAAC  
AACAGACATTTTGCCGTCATCGCCCTGGGCAGTAATCTGAAAACCTGCCAACAGGTA  
CGCGCCGCGATTGGACACGCTGTCGTCCCATCCTGACATCCGTCTTAAACAGGCTTCCTCA  
25 CTGTATATGACCGCGCCCGTTCGTTACGACAATCAGCCCGATTTTGTCAATGCCGCTGTC  
ACCGTTTCCACCACTCTGGACGGCATTGCCCTGCTTGCCGAACTCAACCGTATCGAGGCT  
GATTTTCGACGCGAACGCAGCTTCCGCAACGCGCCGCGCACATTGGATTGACATTATC  
GACTTTGACGGCATCTCCAGCGACGACACCCGACTCACCTGCCGCATCCGCGCGCGCAC  
GAACGCAGTTTCGTATCCGCCCTTTGGCAGAAATCCTCCCTGATTTTGTGTTTAGGAAAA  
30 CACGGAAAGGTTGCCGAATTGTCAAACGGCTGGGCAATCAAGGTATCCGTCTTTTACCG  
GACAGGTAATTCGCGACGCGGATGCCGCTGAAAGCCTTTCAGACGGCATTTCCTTTG  
CCGCCAACACGCGTGCAAAAAATCGCCCTTGGAAAAGGGGCGCAAAAGGAACAAAA  
CCACTACCAAAACTTTAAATCTGAAACACTGCCTGCCGCATACTGTATCCGACAGGATAT  
AAAGCCCTCACTAAATCGTTTCGAGAAATCCAACTTCTTCATCGCCGACAGAAAATCTG  
35 CCTTCTCCGGTACCAGCTCCAACAGAAACGGTTGAACCGCGTATGCAGCCTGTCCTTA  
CACCGCCCCAGCTTTCTGGACAACGCGGACAGGGCGCGTTTGTAGGCATTATCCTTGCAG  
TCAAGCTCCCGCGCACTGCCGACCCAGCTCAAACGAAGGTTGCGGCTTTCATCCTCAATC  
AGCAAAATGCCTGTTTTGACTTCCCCACCTCGGGCTCGCATGAAAGCGCAATATAATAT  
TTGCCGTGATGTTGACATACGCCGCTTCATGCACG  
40

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 343>:

**GNMED25TR gnm\_343**

TAAGTTTCCGTACCGACAGACCTGGATTCCCGCCTGCGCGGAATGACGAAGCTATCCTT  
45 TTGGCCGAAGGTCAAAAATCAGCCGTCACAGAGTATTACCTGAATCACGGCGAATGGCCC  
GGCAACAACACTTCTGCCGCTGGGAACCTCCTCAACAATCCAAGGGAAATATGTTAAAG  
GAATTACAATCCCAAACGGGGTCAATAACGGCAAAATGCCTTCAAGCCGGTTAACAAG  
AAATCCAAGGGAAAAAACTCCCC



The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 344>:

**GNMEE40TR gnm\_344**

5 AGTGCTTGTGTTGTTTGCACCGGTTGCTTTCGGATAATCGTGGGTAATGCGTTCGGCGGC  
ATAAGCTAAATCCGCCTGCACATAATACGGGCTGCGGCTGCCGTCTTCACTTGCCGCCTG  
CGCTGCGGAAGAGAAGAGAAGAGAAGAGAAGAGAAGAGAAGAGAAGAGAAGAGA  
GAGAAGAGAAGAGAAGAGAAGGTTTTTTGGGGGCTGGATTCAATTTTCGGCTCCGTATTCTG  
GTTTTAACTGATTAAAAAGAAAGATTTTCAATGATGTTGCAGGAGCGGACTATATCACGT  
TTGTGGCGATGTTTCAACACAATATAGCGGATGAACAAAAAGAGAACG

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 345>:

**gnm\_345**

15 ACGGGACCTTTGATGCTGATGCTGCTGGTCCGGCACGGGTATTTTGCTGACTGTTTTATTA  
AAAGGTTTGCAGTTCACGATGTTGGGTTATGCGCTGAAACAGGCGTTTATGCCGCCAAAG  
AAGCATAAAAGCGGCGAAGGCCACGAAGGCGATATTTCCCATTTTGGCGCGTTGATGACC  
GCGCTGTCCGCCACCATCGGCACGGGTAACATCGCCGGCGTGGCGACTGCGGTGGTAACC  
GGCGGCCCGGGCGCGGTATTTTGGATGTGGATGACCGCCATTTTCGGCATGGCCACCAAA  
TACGGCGAAGGCGTGTGGCGGTGAAATACCGCGTCAACAATCCAAAGGCGAAATGTCC  
GGCGGCCCGATGTATTACATCGAAAAGGCTTGGGCAAAAACCTGGAAATGGATGGCCGTC  
20 GCGTTTGCCTGTTCGGCACATTCGCTTCCTTCGGTATCGGCAGCTCGGTGCAGTCCAAC  
TCGGTTGCACAGGCGGTGCAAACAGCTTCGGTATCGAACCTGCCTATACCGGCATTACG  
TTGACCGTTCTGACTGCCGTGTCTGTTTTAGGTGGTATTAAAGGCATCGCCAAAGCCGCT  
TCTTTCATCGTGCCTGCTATGGCGGTGTTTTATGTGTTGGCGGTCTTCCATTATCGCG  
ATTAATTCCGATGCACTGATGCCTGCCGTCAAGCTGATTTTCTCCGATGCG

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 346>:

**GNMEG32TF gnm\_346**

30 AAAACGGTAAATCAATTCATACTTGAATACGTTCTGCGCCTGCCGGCTGGGAACAGGCG  
CACGGATAATGCTTTGCCGAGTGCCTTTTAATAAACAATCCGTTTAAAGTAAACCGT  
TTCATGAGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 347>:

**GNMEI01TR gnm\_347**

35 TACCCGGTTCTTAAAGTTGAAAACGTCTCATTTCAGATATGCTGATAATGAGCCATATCTT  
TTTGAACACATTAATTTGGAATTTAGAGATAATGAAGCAGTTGTTTTAACAGGACAATCT  
GGTCCGGGGGAGTCCACTTTGTTAAACATTTTAACAGGTAGCCTAAAACCTGAACTGGT  
ACAGTTAGTATTAATGGGCATGATATATATCAAGTTTCTCCATCCTTTATTAGGGGATTG  
AGCGGGATTGTTCCCAAGATGATGTCTTTTTGCAGGTTCTATTGGGGAAAATATTTCA  
40 TTTTTTGATGAAAGCCACATATGGAGCTCATTGAACAATGTGCACACGTGGTACACATA  
CATGATCCATATACTTAACATGCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 348>:

-737-

**gnm\_348**

AAAAGTTGATAAATGGTAGTAGCATATGGTCTCATAATTTCAAGCTTAGAAATTAGTTAA  
AGAATAGGGGCTGTCTAGATAACTAGCGAAATTCAAATTAAGTTAGAATTATCCnTATG  
AGAAAAAGTCGTCTAAGCCAGTATAAACAAAATAAACTCATTGAGCTATTTGTCACAGGT  
5 GTAAGTGAAGAACGGCAGCAGAGTTAGTAGGCGTTAATAAAAAATACCGCAGCGTATTAT  
TTTCATCGTTTACGATTACTTATGTATCAAACAGTCCGCATTTGGAAATGTTTGATGGC  
GAAGTAGAAGCAGATGAAAGTTATTTTGGCGGACAACGCCAAAGGCCAACGCGTTCGCGGT  
GCTGCCGGTAAAGTCGCCGTATTCGGTCTTTTGAAGCGAAATGGTAAGGTTTATACGGTT  
ACAGTACCGAATACTCAAACCGCTACTTTATTTCCCTATTATCCGTGAACAAGTGAAACCT  
10 GACAGCATTTTTTATACGGATTGTTATCGTAGCTATGATGTATTAGATGTGCGCGAATTT  
AGCCATTTTAGCTTCGCTGAACTTCGTTTTTCGTATCAATCACAGCACACATTTTGCCGA  
ACGACAAAACCATATTAATGGAATTGAGAACTTTTGAATCAGGCAAACGTCATTTACG  
CAAGTTTAACGGCATTCCCAAAGCGCATTTTGTAGCTGTATTTAAAGGAGTGCGAATGGCG  
TTTTAACAACAGTGAGATAAAAGTCTTGTTCATTTTAAACAATTAGTAAATCAAGT  
15 TTGTCTAGTTATCTAGGACAGCCCCTTGTTTTTTGTTCGGCGGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 349>:

**gnm\_349**

CACATCCGTGCCTGTGTCATTGTCAAAAATACCGTAAATAGATTGTATATCCTTTTTATC  
20 AACATCATCCTCACTCAAATCACTGCCCCGATACCGACAGATAACCACGCGTTTGTCTTTC  
AGTTTGAAACGGCGGGCGCGGAGGTAATCGGCTTATCCAGCGTGCCTTTAAAAATAGTA  
CGTACAGACCATTGGTTCGGATCGTTGTTGCTCAAATCAAAGCGGTACATATCCCGCCG  
CGTCCGCCGGCATAGGCGATATCGACCGTGCCGTCCAAATCTTTATCCACCAACGTGGGG  
GACGAAAGCCCGCCCTTGCCGTGCGGTACGTTGATTGTTGCAATCGGCGTACCGTTGTTG  
25 TTTTCCAAATCATACACATACAGCGCGGTTTTATTCTCGCCGTTGTTAATGTCCTTTAGTC  
GCATAACCGGAGGCGATGAAGGCGGCGTATTTGCCGTTGTGGGTTTTGCCGATTTGCGGC  
GTACCGACGGTGTAGCCTAATTTACGCCATTGTGCTTTTTGACATCAAACATGGAACG  
CCGGCCGGGTTGCTGTTGTGCGATTTTGCTTAAATCCAAGGCGTATGCGCCTCTGCCGCA  
AAGCCCATTGCGCCGAACATAAAGAAGTGTTTTGCTTGTCTTGGTCATCTGTAATGCGG  
30 CGCAAGACAAAGCCGCCGTCCACGCCATAGCGGTGCGCCACATAGCCTTTTTTCGGCAAAG  
GTGCGCAGCTCTTTGGCAAGGGTGGATTCCGGTGTGTTGAATATCCTTGCGCGGCATCGTG  
CCCTTTTCAGACGGCAGCAGCTTTTGGATTACCGCGGAAGACGCGCGTGCCGACGTACAGG  
TTTTGCGTGCCGAAAGCTGCGCGGTGCTGACCGGCATCGGCACGGTGTGGCGGACAATC  
CCCGGCTCAACGTCCGCGCTTTTCCAACTTTGCGCCAACCCGCACGCATCGTTTTAGACA  
35 GCCGCTGCGCCTGCCCCGAACAGCCATTTGGTTACCGACGGACAATCTCCGACCTACA  
TCGCCACACTCGAACGCAACGAAGACAGACTGCACCCCTATCGGGAACACGCACACGTCC  
GCATCCTGATGCCGTCTGAAACGGCAGACAGCAAAATCGACCTGCACCACCTGATGCGCC  
TCCTTGCTGACGAAGGTTTCGGCGAAATCATGGTCAAGCAGGCTCCGAACTCACATCCG

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 350>:

**gnm\_350**

TCAAGGCATTTTTTTTCGATTTTGATAGTCTGCAACTTGAAACAAAACCTACAATATTGT  
CAATATCGGCAATCCCCCATCAAATCCGCCAAATCAAAAATATAAAAAGGGATGTCCT  
CGATGGGCATATCGCGTATTACTTGTCAATCCATAACTGAATTCATTTAAATCAATAG  
45 ACTGAGAGAATAAGCATTAAATTGCAAATCCTAAATCATCACTATCCTCTTTTATGATT  
TCCACATAATTATCTTCCCTTTGCCGTCAAACGCTCTTTTIAGTACCCGCTTTATATCAA  
AATACCGTCTGAAAGCCGAATATCGTTTCAGACGGCATTTTGACTGTTTAAAGCGGGGGC  
AGTTCTACAAACGGAAAGAAATGCTGAAATTTCTGATAAATTCAGGATGTTTCTCTAAA  
GCTTTTAATGCTTTTTTCTTTTGAATAGGCGGATCATAGACATCTATCCCCCTTAAGAAG

GCAATGCCGGTCAAGGCATTTTTTTTGGATTTTGATAGTCTGCAACTTGAAACAAAACCT  
 ACAATATTGTCAATATCGGCAATTCCCCATCAAAATCCGCCAAATCAAAAATATAAAAAG  
 GGATGTCTCGATGGGCATATCGCGTATTACTTGTTCATCCATAACTTGAATTCATTTA  
 AATCAATAGACTGAGAGAATAAGCATTTAATTGCAAATCCTAAATCATCACTATCCTCTT  
 5 TTATGATTTTCCACATAATTATCTTCCTTTGCCGTCAAACGCTCTTTTAGTTACCGCTT  
 TATATCAAAAATACCGTCTGAAAGCCGAATATCGTTTCAGACGGCATTTTGACTGTTTAA  
 AGCGGGGGCAGTTCTACAAACGGAAAGAAATGCTGAAATTTCTGATAAATTCAGGATGT  
 TTCTCTAAGGCTTTTAAATGCTTTTCTTTTGAATAGGCGGATCATAGACATCTATCCCC  
 CTTAAGAAGGCAATGCCGGTCAAGGCATTTTTTTTCGATTTTGATAGTCTGCAACTTGAA  
 10 ACAAAACCTACAATATTGTCAATATCGGCAATTCCCCATCAAAATCCGCCAAATCAAAA  
 ATATAAAAAGGGATGTCTCGATGGGCATATCGCGTATTACTTGTTCATCCATAACTTG  
 AATTCATTTAAATCAATAGACTGAGAGAATAAGCATTTAATTGCAAATCCTAAATCATCA  
 CTATCCTCTTTTATGATTTTCCACATAATTATCTTCCTTTGCCGTCAAACGCTCTTTTAG  
 TTACCGCTTTTATATCAAAAATACCGTCTGAAAGCCGAATATCGTTTCAGACGGCATTTT  
 15 GACTGTTTAAAGCGGGGCAGTTCTACAAACGGAAAGAAATGCTGAAATTTCTGATAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 351>:

#### GNMEI43TR gnm\_351

TACCCTCAGGATTGGCATATTGATCCCGATAACCATTCTCCAACAACCCCGACTTTGTG  
 20 GACTCCTGGCCGCCACATGGGGTTGTTGGCACCGACGAAGCTGAGATTCATCCGGCGATC  
 GCTAAGATTCTGTGACGCACGGGTAAAGAAAGGCCAATACGCTGCAGCCTATTCCGGG  
 TCAATTTATTAAGCTTCTATCAACCTCCCATCTCGGTTTCGCATCAAACACAGGCTTAG  
 CCTTAGGTATACGCCCCCGATTTACCCACACTGAACAAATCTATAGAGAAGTGAACAT  
 ATTCGCGAGCTGCTCCGACAGCCCCAAGTCTCAAGGCCTGAACCGCAATCGTCGGTC  
 25 GTTGCTCGCTGGCTTTTTTCCGAAGTTTTTCGTCCAGTAATGACATGATCGTAGGAAG  
 ACGTTACACCAACCAAGCGGCGGCACAGCCTAAGCCGAAAGTCTCGGCACAAGATCCGC  
 CTCCGGCTACTCCTGAAAGAACAACCCCAAACTGCCCGAAACGATTTAGCCCCGGGTG  
 AGATGTAGCGGTGCAGGATACTTTTGTCTTCCCTATCCAGCTTTTCGTATTCAGCCTTCA  
 AATAAGAGGCTACTAAATCAGGATGTTTAGTTAGGTAATATAAGGATTCCTTTTTTAAGT  
 30 CCTTAAACCTACTGTCAAAGCGTTTGTCTGGGTAAATTCGATAATGCGTCCTATATTTT  
 GACGACATTCCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 352>:

#### GNMEI51TR gnm\_352

TCAATACAGTTTCAAAATGGAAAATGATACGTTCACTTTGGATTTTAGTGGTCTTGTTC  
 35 AGCATTTAACCATGTACAGAAGCTAATCCGCAAAAAGCTTTTGTGGATTTGGCCGAGAT  
 GCTTGCAATATGGCGAAGTTCGTTCTTGGTATGAAGGCCGAAGACTAATGACCGATTATGT  
 GGAGGAGGCATCACAAGCAGGTAAATTTGAAGATTACCAGAAAGTGTTGGGTGAGGAGAC  
 CGTTGCATTATTAGCTAAAACATCGGGTACGCAAGCACATGATATCCTGCACAATGTATG  
 40 CTTTGGTCATAATAAAAATGTTTCTTTATATGGCAATCACAGGAAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 353>:

#### GNMEJ36TF gnm\_353

CCGCGCTTGAAACGTCCGCTTGACGATACTACAGAAAGAGTGTTTCAAACCTGCTCTATG  
 45 AAAGGGAATGTTTCAAGTCTGTGACTTGAATGCAACATCACAAAGAAGTTCCTGAG

## 5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 355>:

## 15

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25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 357>:

## 30

40

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 358>:

**gnm\_358**

GCGGCAATGCCGTCTGGAAAAGCGGATACCGCCCTGCTGTTGTACGGGTGCGGCTTCTAT  
TTGCGCCGTTGCGGCAACTTTGGCAACTTTGGCAACTTTGG

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 359>:

**GNMEL61R gnm\_359**

CCCCGAAGTGGCGAGGGGGCAAGCAAAGAGCCGAAAGACAGGGGGGACCGCAGACAGGGG  
CGAAAGCAGGAGCGGGGAGGGCAGAAGCCAGGGGGGCGGCAACAACGGAAGCCGCAGGGG  
GGAAGGAACGGGGGCAGCAGCGGCCGGGAGCGAAACCGGCAGGGGCAGGGGCAAAAGAA  
10 GCCGGAGAGGAAGACGGGGAGCAGGGCAGAAAAAGAGCAGCAGAAGACAGAGCGGCCGAA  
GCAGAGACAACGGGGGTGAGTGTGGGACGGACCCAAAACCCGGGGGGCGCTGGGGCGACG  
AGACGGAAGGCGAGAAGAGGGCCAACCGAAGCAAAAGCACGGGAAACAGCAGCCAGCAAA  
GCCGGCGGCGCGAGGGGGGGGGCCAAGGCCGACAAGCTCGGAAAGAGAGCCAAAGACAC  
AGCGGCAAGAGAAAAAAAGGAGGAGGGAGAAGCGGGGGGGCCAGGA

15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 360>:

**GNMEN01TR gnm\_360**

CCAATGCAGGATCCGAGCCGAGTATGCAACCTACACCACAGCTGGCGGATTTGCACAAAT  
TGAACCTTGTGATGCTGGGTGATGAAGCGCACCATTTAAACGCGCAAACCAAAGGCAAAA  
20 AACAAGGCGAATTAGATTTAGAAAAGGAAATGAACGACCGCACCAAGCAATGCCGAAATTG  
AACGTAAAGGCTGGGAGCATATGGTTTTGGAATTGTTACTCAATAAAAAATGGCAATCATA  
GCCAAAATGTGCTGTTGGAATTTACCGCCACGCTGCCTGAAAATGCCGATGTACAACAAA  
AATACGCTGATAAAATCATCACAAAATTTGGCTTAAAAGAATTTTGCAAAAGGTTATA  
CCAAAGAAATCAATTTGGTATCCAGTACGCTGGGTAAGAAAGAGCGAGTGTTACACGCTT  
25 TATTGTTTGCTTGGTATCGACATCGAATTGCGTTGAAATATGGCATTGCCAATTTCAAGC  
CTGTGATGTTGTTTAGAAGTAAGACGATTGATGAATCAAAGCGGATTATCTGGCATT  
TAAATTGGGCAGAAAATGTGCAGGCGGTTGATTTTCGTTTTTAACACTACATTTCAACAA  
GCTTGAACGATAGCGATAGCGATAACGCCAACGAACAAGGCAAAACCCGCACTGAACAAG  
30 CCCTAAATTTATGCAGGAAAAAGCGGTTGAGTTTGACATTTGGCAGATTGGGTAAAC  
AGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 361>:

**GNMEP25TE72 gnm\_361**

TTCGGACATTCCCTTAAATTACCCGTGTATCGCTGTAAATCTTAGAGATGGCGGAATATAG  
35 CGGATTAACACAAGGCATTACTGCAATGCTCAGGATTCCGGTACAGGGTCATCGTTGCAC  
ATTTAGCCAAACGGCCGTGACCGATTTACGGCGTTTCGGTGCGCCCATGCGGCCCCACTT  
CGCCGGTAGAGTACGGCGGAAAGTTGTAGTGCAGCATAAAGCGGTCGGTGTATTGCGCGG  
ACAGCGCGTCGATGATTTGCTCGTCGCGCAAGTACCCAAAGTTGCAACGGCCAAAGCTT  
GGGTTTCGCCACGGGTAAACAATGCAGAACCGTGCCTGCGCGGCAATACGCTGGTTTGA  
40 TGTTACAGCGGACGGACGGTGCGGGTGTCGCGGCCGTCGATGCGCGGTTGGCCATCCAAAA  
TTTGGCTGCGGACGACATCGGCTTCCAAGTGTTTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 362>:

**gnm\_362**

GCATTGCTTGTGGCCCTTACTTTTAGCATCTTGTATCGGCGGCAATTTTCGGCGTGCAGC  
 CTGTTGTGCAATCAACGCCGACCGCGTACCCCGTCACCTTCAAATCTAAGGACGTTCCCA  
 CTCCGCCCCCTGCCGGGTCTTCGGTAGAAACCACGCCGGTCAACCGGCCCGCGTCCGGTG  
 5 CGGCAATGCGGCTGCCAAGGCGGAATATTGCTTCTTATAAACAAGACGGTACGGAAATTC  
 CCGACAAGCATCAGGCAGAGGAGCATCTGCCGCTTAAAGAGAAGGATATCCTGTTTTAG  
 ACGGTACGCTGAAAGAACAGGCTGACAACTTAAAAAGAAAATCAACGAACGGTATTCTG  
 ATGTGAGGGTTATCACATCGAAAAAAGAAGAAGAAAAATATCAATATCAATTTGTCCGTG  
 CGGGCTATGTGTTTACCAGGGCGGAAGGAAAGGATAATGAAAAAGAAAAGACTTCTGATG  
 10 GTAAGGAGTTTGTAAACCGATTAGTTATGACGGTTTTGTATATTATTCGGGAGAACGTC  
 CTTCCCAATCTTTACCAGCGCGGGAACGGTGCAATATTCCGGTAACGGCAATATATGA  
 CCGATGCCAAACGTCATCGGACAnGTAAGGCGGTTTycAGTACGGATTTGGGTTATACCA  
 CATATTATGGtAATGAAATTGGGGCAACTTCTTATGAGGCTAGGGAT

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 363>:

**GNMEP68TB22A gnm\_363**

ACATGGCATTTCGGACTTCATGCGTTTCGTGCGCGGCTTCGGCTTTTCAGACGGCATATTTG  
 ACGTTATGATTAAACAGTTAACAAGATTTATCACAACGCCGTCAAGAGAC

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 364>:

**GNMEP74TR gnm\_364**

ACTTCAGCCTCCCAAGTAACTGGCATTACAGGCATGCGCCACCATGCCCAGGTAATTTTT  
 TTTTTTTGTATTTTTAGTAGAGACGGGGTTTTGCCATATTGTCCAGGCTACTCTTGAAC  
 25 CCTGCCCTCAAGTGATCCGCTTACCTCAGCCTCCCAAAGTGCTGGGATTACAGGTGTGAG  
 CCACCATGCCCAGCCATCCTTGTATTCAACCCTACCACACTTTAAATCTCTGACAGGG  
 AGTAAGTATGCAAAACGCTCCCATCCGGTCAGGCGCAGTTCTGCCACGAGGTCAAGATAA  
 GCAGGCAGTTTCGTGCGGGTGCCGGAGAAGAAGACAAATGGCGGCCGCACCATTTGCCATC  
 AGGCGCAGAACTCTACCATGCCGAAGTAGTTCATCGCGTnCCCTTTCCCCGGCGGCGC  
 30 GGCTTTGGTTTTGAACGCGCGTCTGTGCTGCCTTTTCAGTTTCGTGATATACGCCTGCC  
 GGCAGTGGTGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 365>:

**gnm\_365**

CCTGCAGTTTCTCGATATAGCCTTCTGCATCGGTACGGGTATGTAGGTTGTAACCGGGTT  
 35 TGTAAGAGCCGTTTTTCTTTATCCAACGGGCATCGCTGTCCTTACTCGGTGTGGTTTGAC  
 CGCTGATTTGTCCTTCTTCGTCAACTTCTATGGCCTGACGCTGTTTGCTGCCGGCGGTCT  
 GAATAATGGTGGCGTCAACGACGGCAGCGGATGCTTTCTCTATTTTAAACCTTTTTCGG  
 TCAGTTGGCGGTTAATCAGTTCCAACAGTTCAGACAGGGTATTGTCTTGCGCCACCGGTT  
 GCGGTACGGCATAAGGTGCTGTAATCGGGGATGCTCAGTTTCGTCAAAACGGCAAAACAGG  
 40 TTGAAATCGATGCGGGTAATGAGGCTGTGTTTCGAGTTTCGGGATCGGAGAGGCTGTGCCAT  
 TGTCCGAGCAGGACGGCTTTGAACATGGACAGCAGGGGATAGGCAGGACGGCCGCGGTGG  
 TCTCTAAGGTAACGGGTTTTTTGACGGTTCAGGTATTGTTTCGATCAGCTGCCAATCAATC  
 ACCCGGTCCAACCTTCAATAGCGGGAArCGGTTCGATGTGTTTGGCAATCATGGCTTGGGCG  
 GTTTGyTGgAaAGGTGCTCTTGAGAAATCCCCTAAATGTCTTGGTGGGAATTTAGGGGAT  
 45 TTTGGGAATTTTGCAAAGGTCTCTAGATGAGTGAAAAAGAAGTGCAGGCTGCCTAAAAA

GACAGAAAAAGTCTTTCCGGCAGCCTGCACTTTGGTTTCATTTAGTCAGTAAACCCAGT  
AAACGACGGTCTGAAAACGCAGAACGTTACGAAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 366>:

5 **GNMEQ90R gnm\_366**

GCTTTGCCGTCAAGCGCGCCGCCAGTTGATTTGGTTGCGCGCGTGGTTTGGGAGAAGCTT  
GCGGAATACGCGCCAATACGTGCGCTTTACCGATTTCTGACCTTCGCGTACGGTAATCA  
CCGCACCAACGGGGAATGCCATGGATACCGGAGTAGAAGTACCGGGAATACAGATTTCCA  
CGCCGTTTTTCGTCCAAGAGTTTACAGTCGGACGCAGCAGTGTCTTCTTGAGAGGAA  
10 CGACGTTTACCGTCAATCACCACCAAAGTGGACAAACCGGTTACATCATCGGTTTGTTG  
GCAACGGTAACGCCCTCTTCCACGTTTTTCGAATTCACCATACCTGCGTGTTTCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 367>:

**GNMEQ91R gnm\_367**

15 CAAAAGTTTTTCAAATGAAACGGTTGCGGCATCGGGCGGTGTCGACGTTGATTTGGTTCC  
CGTGTGGTAGGGGAGGAAGCGGCTTCTTCAAACCTGCCTTTGATTGCTGTTGTGCGCGC  
GGTGATGGGGAATCGGGAGAGGTGCGCGGTATGTGTGCCGCCGGTATGTGCGATTGTGCC  
GCTGTTTTTCCCGTCTGCCTGATGCGGACAAGGGCTTTTCCGCTCCGCAAACCGGCAAG  
20 CATGGGGACGGAGATAAAATCGTCGGAATACCGTAGATCGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 368>:

**GNMEQ92R gnm\_368**

GAAACGGTTGCGGCATCGGGCGGTGTCCATTTGTATCCGCCGTCCTTCGGGGGCGCGGTT  
GATGTTGACGCAGATTCCGCTGCGTTTGACCGATGATGTTGCGCGGTTGATGGGGAATCG  
25 GGAGAGGTGCGCGGTATGTGTGCCGCCGGTATTGTGCGATTGTGCCGCTGTTTTTCCCGT  
CTGCCTGATGCGGACAAGGGCTTTTCCGCTCCGCAAACCGGCAGGCATGGGGACGGAGAT  
AAAATCGTCGGAATACCGTAAATCGGGAAGCGGGCTTGTGCCGTCGCCCTGTCGTCGCC  
C

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 369>:

**gnm\_369**

CATCGGGCGGTGTCCATTTGTATCCGCCGTCCTTCGGGGGCGCGGTTGATGTTGACGCAG  
ATTCCGCTGTGTTTGCCATTATGTTGCGCTGCGGGATAAGCAACATTTATGAGCGGCTA  
AAAATGGGACGCCGGTATTCTCGATTGTACCGCTGTTTTTCCCGTCTGCCTGATGCGGA  
35 CAAGGGCTTTTCCGCTCCGCAAACCGGCAAGCAGGGGGACGGAGATAAAATCGTCGGGAA  
TACCGTAAATCGGGAAGCGGGCTTGTGCCGTCGCCCTGTCGTCGCCCTTCAGCACCGGTT  
CGTAATAGCCGGTAACCGTACCGTCAAGGCTTCCGTTGCCTGCAACCTGCCACGGCGTGA  
AATAGCGTTCAAAAACTGTTTTG

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 370>:

-743-

**GNMER68TR gnm\_370**

CACTGTGCCGCCGCTTTGCCCGTCGGTGCCGCAAGCGCGATGTTGGGAAGATTTTCGTCT  
TCACCGCAAATCAGCGCCAGCAGTTTGGCAACCGTTGTCTGTTTTGCCCGTTCCCGGCCCG  
CCGGTAATCACCATAAAAGACTGCAACAGTGCCAAGGCGGCGCATCGCGCTGCCCTTCG  
5 CTGCCCCGTGCCTTGAAACCATTTTGCAGAGTTTTCCTCGCGCTGCCGCGTCGGGGGCG  
GATGTGCCGGCTGCCGCCAAGCGTTTTATCTCGGCAGCCAAATCGTATTCCAACCTGCCAC  
ATCCTGCCCCAAAACAGCCTTCTGCCTTCCAnAATCAAAGGCGGCGCGGATGTTCCGACA  
ACnGGTGCGAGTGCCGACAGCGCGTCAGCCTCGCCACCGCTCAAACGGATATTGAACCTT  
TCTCCACTGCGGTCTACGCCTGCGACTGTGATAATGCCTTTTTGAGCGTCTTTTC

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 371>:

**GNMER69TR gnm\_371**

CAGGCAGGTTCCGGTCGGTTGCAGCCACTTCAACGACTCCGGCTTCTGGCTGGTCGGCCGT  
CTCTTGGACATGGACGTACCGACCACGCTGAAAACCTGGACGGTCAACCAAACCTCATC  
15 GCACTCATCGGCTTTGCCTTGTCCGCACTGCTGTTGCCATCGTCTGACAGACGGAAAGG  
ATAGTAAATGACTACGCATTTTGTCTTATGGGCGTATGCGGCTGCGGCAAGACCACCGC  
CGCGCTGTCCCTGCAGAAACACCTCGGTCAATGTCCCTATGCCGAAGGCGACGAGTTCCA  
CACCAAGCCAACCGCGACAAGATGGGCGCGGGTATTCCGCTGACCGATGAAGACCGCTA  
TCCGTGGTTGGGAATCTGCGCGACTGGATGACGCAACAGGCGCAAAACGGTGCGAACCA  
20 CACCATCGTAACCTGTTCCGCCCCGTACGAATGACCGTTTTTGCATGCCTGAAACAGGCG  
TTCGGTGCAGTTTGAAGCACTTCGTGCGCCGAACCCGCATAGTGTCCAGAAAACGGAT  
TGCCGCCCTTGCCGCGCTTGGGCAAATTCATCTGTCTGCCGTTCCATT

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 372>:

**GNMER70TR gnm\_372**

ACTGGAAAGTGCGCATCGAAGATGCCATTGCCGCCGACGAAGTGTTTCGTTACGCTGATGG  
GCGACGAGGTGCGAGCCGCGCCGTAGCCTTTATCGAACACAACGCGCTGATTGCCCAAAA  
TATCGACGCATAAGTGCCGTTTTAAAAAGGAGACGGGCATCGTGCCGCGTCTCCTTTTT  
GGTTGGTCAAACGGAACCTGTGCCGTCTGAAAAACCGTCGGAGCAAAATATGATCAGCAT  
30 TTTTCGATATTTCAAATCGGTATCGGGCCTTCCAGTTCGCATACGGTCGGCCCGATGAA  
GGCAGCCGCCGCTTTGCGGCAGGTTTGGATGCACAGGCTGTTTCGCATCGTCATCGACAT  
TTACGGCTCGCTCGCACTGACCGGATACGGACACGGTACATTTGACGCGCTGACAAACGC  
GGCTACCGCGACATTCTGCGCGGAGCCGAAGGCAAAGCTGCCTTCATCCACCTCAGTCCG  
CCGCAAGACATCAACCTCGAGCGCATGATGTGCGCAGAGGACATTACATGAAAGCAGGG  
35 ATGCTCGAT

30

35

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 373>:

**GNMER71TR gnm\_373**

CGGCATGCGGATTGAACATGATGATGTGCGGGTCTTTAAACGTACCTGGTTTCGCCTTCGT  
40 CGGTGTTGCAAACCACATATTTTTCGCCCGGGAAGAACGGGGCATAAAGCTCCATTTC  
AACCGGTCGGGAAGCCCGCACCGCGCGCCGCGCAAACCGGAGGTTTTGACTTCGTCAA  
TCACATCGGTTTGCAGATGTTTTCGGACAGAATTTTACGCAGGGCGGTATAGCCGCGC  
GTTTGACGTATTTCGTCCAATGTCCAGCAATCGGGATTGGCGGTATCCACTTGGTCAAAAA  
TCACGCTGATTGGTAAATAGCCATTTTTGGTGTGCCTGTTGTTTTTCGTATCGGTTGCG  
45 GTCGCTGTTTCAGACGACCTTAAGATGTCTTTGTGTACCGGCTTGTAACGTCGTCTGAAA

40

45



TAAAATCTAGTTTATCAAATCGCTCGGTTTGAAGGCAGCCTGCCGCACGACATCCCGCT  
TGCCGGCATTCCCGAACGCCTCGAACGCATCCGCACGACGACATCCTCCGGCTCAACGG  
GCAAGAAATCGGCTTCATCCCCGA

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 374>:

**GNMER72TR gnm\_374**

CGAAAGCGGGAATGCCGAATCCGTCCGCGCGGAAACCTGCATCCCGTCATTCCCGCGAAA  
GAGGGAATCTAGAAACGCAAAGCTGCAAGAGTTTATCGGAAATGACCGAAACTCAACGAA  
CCTGGATTCCCGCTTTTCGCGGGAATGACGGGGGTTTGGCGGGAATGACGAGGGTTTGGGA  
10 TTTCTGTTTTTGAATTTCTGTTTTGTGAGAATGGCAAGATTTTCGGTTCTTGTATGGAT  
AACGAGATTTTAGATGGCGGGAATTTGTCTGGGAAAACAGCAATCTGAGACCTTTGCAAAA  
ATAATCTGTTAACGAAATTTGACGCATAAAAAATGCGCCAAAAAATTTTCAATTGCCTAAA  
ACCTTCCTAATATTGAGCAAAAAGTAGGAGAAATCAGAAAAGTTTTGCACGATATTTTCA  
GACGACCTTTAATCGTTTTTGTGGATCTCGACACTTGCTTGTCTGTCGTCATTCCCGC  
15 CAnGCGGGAATCCATCCTCAATGGTAAGCAATGTCTTATTAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 375>:

**GNMER73TR gnm\_375**

CGGCAATACCGATAACGGTCAAATCCACATAACGGTTGTTGGCAAATGCTTGGCGCACCA  
20 TCAAATGCGCCAGCGAGCCTTGTCCGAACAAATCGGCCGCCTCGGCATCGCTAAATAGTT  
GCACCGGCTCTAAGGCGGGCTGTATGCCGCGGTCAGCATGGGTGCAACCATCAATACCT  
TTTGGCGATTTTTCGGGCAAACCTTGTACGGCATTGCGGGTGTTAAATTCAATATACTGCC  
CGGGCACGCGGATGCTGCCGGAATCGTGTCAAATCAATATGGGGCATCATTACTCTCC  
CTTAGTATTGCGGGTTTGGTATTTGGGGCGGCATCCTCAACCACCACCAAATCGCCGTC  
25 ATCAATCATGCGGCGGTAATACAGGCTGTTGCCGTCCAACCTCCACCGGCTCTTGGCCGAT  
ATATTGCTGCGGGTTGTGTTTTTGAAGATGAGATTGAGCATAAAATTTAGTAACCTAT  
GTTATTGCAAAGTCTCAATCTTTACCGTCATTCCCACGAAAGTGGGAATCTAGAAACGC  
AAAGTTGCAAGAATTTATCGGAAATGACCGAGACTCAACGAACCT

- 30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 376>:

**gnm\_376**

GGGCGTTGATTGCGATTGTAGGGTTGTAGGCTGGAAAAGTTACGGCATTTTTAAAGTTT  
ACAGCAWAGCCACAGACAGCCGGATTGAGCAGGAAGCGCAAAAAGAAAGCGTTGTGCAGA  
CGATGACGGAGCAGCCTGCATCATCAGAGGAAATGCCTTTAAAAAATTCAGACAATTTGA  
35 AACCTGAAGACTTTGTGCCGACTTTACCCGAAAAGCCCGAAAGCAAGCCTATTTATAACA  
CAGTCCGACAAGTAAAAACCTTTGAGCAAATCGCCGGATGTATAGACGGCGGAAAATCAG  
ATTGCACATGCTATTCAAATCAAGGAACACCCTTGAAAGAAATAACAAAGATAATGTGTA  
AAGAATATGTGAAAAACGGGTTGCCTTTCAATCCTTATAAGGACGAACAGCAAAGGACGG  
AACAGGTGGAACAGTCCGCGAAAGCGGACAAGCCGCAAGTTCTCGTAATGGGCGGAAAGC  
40 CGTAGCAAAATCTCATGTACGACAACCTGAAGAGCGCGGAAAACCGTTTGAAGGAATTGGC  
GGCGGAGTCGTAAAGCAGAAAGTTCAATCCCTACCCCTCAGGATGGCTTGAGCTGAGTGA  
AGGGGGTTAATTGCTAGAATGGCTGTTTTTTTAAAGTGTCTCAGTCTGGAATCGCTTCG  
TTCGGGGGTTGTAGTGCAGGAAAATATGGCAGAAAAAAGGAAACGGGGGAAGCTTTGTA  
AAGATTGGGCGCGCTTTTACCCAATCTTTATGAATACCCCTTTTCCTTTTTTATGAAC  
45 TGTTTTTCAGTACCGGTAACCTCTCGAACGGAGTGATTGAGACTGAGATACGCCCATTTGA  
AAATCAGACATTCCGGTCGCATCAGAAACCTTTACCAAGACCTGCGACCCCAATCTACGG

-745-

CAACGGCGACAATATGCCCGATGAGAACTGCTGCCGTTGTTGACAAAAATCAATTTGCAG  
CAAGGCAAGCATTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 377>:

5 **GNMER76TR gnm\_377**

CCGCCGAAGCAATCGAGGCGGCGTGGATATTGTTGGTAATCACCCCTCAGGCTGCCGCGCC  
GCCTGACCAGCTCCGACACCACGGCCTCCATCGTCGTGCCGATACTGACAAACAGCGACG  
AACCGTCGGGGATGTGTTCCGCAATCAGCCGGGCAATGGCGTTTTTTTTCGTTTTGACACC  
GGGTTTGGCGGTCGGCGGGCAGGCCCTCCGGCAAGTTTCCGCCCCGAAGATGCGCCGCCGT  
10 GATGGCGTTTCAGGCTGCCGACCTCCTCCAACCTCGCGGATGTCGCGGCGTATCGTCTGCG  
GGGTAACGTCCAATGCGGCGGCAAGCTCGTCCACCGACATAAACTGATGCCGGCGGACAA  
GGCTTAAATCTCTCCGTGCCTTTGGATTTTCGGCTTCATCGTTTTCTGAAAATCAGATA  
CGGCAAAGGCGATAAGCTTCAAGCCCTGAATGAGTAGATCAGCCCATTGAGGGCTTGGCG  
TTTGA

15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 378>:

**GNMER80TR gnm\_378**

AAATCCCGTTTATTTCCACAAAAACAGAAAATCAAAAACAGCAACCTGAAATCCCGTCTTT  
CCCGCGCAGGCGGTAATCTGAACACGTCCGTAGTGAAACCTATATCCCGTCATTCGCACG  
20 AAAGTGGGAATCCAGGATGCAGGAAAAACCGTTTTATCCGATAAGTTTCCGCACCGAAAG  
GTCTAGATTCCCGCTTTTCGCGGGAATGACGGCGGAGGGTTTTAGTTTTCTCGATAAATG  
CACATCATCCAAAGTCCCGTTATTTCCACAAAAACAGAAAATCAAAAACAACAATCTGAA  
ATTCCGTCCTTCCCGCCTGTGCGGGAATCCGGCTTGTTCGGTTTTCGGTTCTTTTTCTCGT  
TTCCGGTGATTTCTAAACCGTCATTTCCCGCGCAGGCGGGAATCTAGGTAnGCATACGGCT  
25 TTGTTCCGCAACCATTGTTGGGCCCCACGCCGAAAAACTCGCCACCCTGCGCGAGCAGCTC  
GGTCTGTTGGGGCTTCAACTTGGCGGCGGCGACAACCCGTGCGCGAnAGATATGCCGCG  
CTTGTCGAACATTCAAAGGCAGACTGATGCCGAATTGCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 379>:

30 **GNMER81TR gnm\_379**

CGCCCTTTGAATTTGCCCCATAATGCAGCCTTGCCCAAGACCAATGCCGCATTCTGGTT  
CAGATTCACATTGCCGTTAATCTGTGTGCTCCAAAGCTGTTTAAAGCCTTATCGGATAA  
GTTGCCTGTGTTGCAGGTAACGTAACCGGTATAGTCCGAGCGCACGCAAACCTCATCGCC  
GTTTTTGTAAACCAAATTTACTTTGGCGTTGTCTGTTGCGGTGATGTTGGCGGTGATGTC  
35 GGATACATTTCTGCCGGAAGAGAATGATGCGGATTGATTAACCGCAATTTCTGTGGCTTT  
GAATGTGCGGTTTATCCAGTCGTCTTCAAATACGACTTCATTGTTTTTGGAGAAATGTGC  
GTCTTTTCCGGCTGAAGATTGTTTCAAAAATCTCTTGCCTGTGGTGTGGACGACCTGA  
TAACAAGACATTGCCTTGATCTTTAAGCTTCGGTTTTTCTTGATAAATCTTGCCGCATT  
AAAATTCTAGATTCCGCTTTTCGCGGGAATGACGGCGGAGGGTTTTTGTTCCTCCGATA  
40 AATGCACATCATCCAAAGTCCCGTTATTCCACAAAAACA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 380>:

**GNMER87TR gnm\_380**

CAACAACCTTCAGCGCCTGCATTATAGGCAGCATCAACCATTTCAAAAGCTGTTTTTAAAG  
AGCCTTCATGATTGATGCCGATTTACAGATAATCAATGGTTCGTGGTTGTAACCTACTG  
AACGATTACCAATTTTAAATTCGTTGTTGTTTTGCATTTAGCTTTCCTTGTGATTAAGAA  
5 TGTCTTCTGCCTGTTGTAAATCAAGCTCAGTATCAATATCGATAGAGTCTTGATGAGACA  
TAATATAAAGTTTGGTTGGGGCGATAAAAAACAATTATTTGCAATTAGTGAAGCAGTAT  
CATTAAATGTAAATTGCACCATTAGGCCTAAATGCCTGAGGTAATTGTTGGCGAGGCTGCT  
CCAAATCGCTTAGATGGCGCATGGGGGCATATTCGCCATTATTGATTTGAAGCAAGGTTT  
TTAGTGGATGATGCTCCACAAATACGCACTTGCTGCCTTGTGATAATGTTGTCGTGAA  
10 TATCGGAATAATTGACATAGTTGAGCATAATGCCCTGATCGCGGCTGCCGACGGCGATAT  
TGTCGAATACTTTGAGCCGCTCGGAAAACATCAGCACATAGCCCATATTGTTGCCACGG  
AAATATTGCCGCTGATTTGCTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 381>:

**GNMER88TR gnm\_381**

CACGGATGACGCGCTACGGATTTCGCCGGGTGGCTTCTTCATAGATTAAATTGCCCGCCG  
CGCCGGCAGTGGAGTCCAATACATCGACCAAAGGCACGCCTGCCGCAATCAGCGTCGCCG  
TCGTCGTGCCCGAGCGGGCAATCGTTTCTTTCGGGACAATGTCTCCGAAAATCGGCATAC  
GCAGCAGTATGGCATCCATACGCCGTTGGATTTAATCGAACGCGCCTTCAATTTAAGGA  
20 AGCCGTATATGGCAAAGCCAGTGGCATCAGCACCATCCAGCCGTATGAGACGAAAAAGT  
CGGACATATCCATCACTGTTTGGGTCAGTGGGGAAGCTCCGCGCCCATATTGGCGTAAA  
CTTCTTTAAAGGCGGGCAGTACGAAAATCATCATCACGAATACCAAACCGATTGGGCATG  
CAGAGACAACGGATCCTTTTATTTCTCATCAAATAGAGAAAACTTCACGAATATGAGC  
CCCTGTGCGTAATGGACTGGTTGGTTGTAATAAGGTTACTGTGCCGAATTAC

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 382>:

**GNMER91TR gnm\_382**

CACGAAGCCCGCGCGGAACGCGTCTGCCACAAACAGCATACGTTCCGGGGCCGGGGTTTCGC  
CAGTTTCGCGGCGGATTTCCGCTTTGTCTTCACTGCGCGGATTGAAGCCGCACAGCCTGT  
30 TTCCAAGCCGCGCAGGGCTTTTGGAACTTTCTTGAATCGTGCGGCCCATCGCCATCAC  
TTCGCCCCACCGATTTTCATCTGCGTGGTCAGGCGGTCGTCTGCGGCAGGGAATTTTCAA  
CGCGAAACGCGGGATTTTGGTAACCACATAGTCGATGGAAGGCTCGAACGACGCGGGGT  
TTTGCCGCGGTTGATGTCGTTGCGCAACTCGTCCAGCGTAAAGCCGACCGCCAGCTTCGC  
CGCCACCTTCGCAATCGGGAAACCGTTGCTTTGGAAGCCAACGCGGAAGAACGGCTCAC  
35 GCGCGGGTTTCATCTCAATCACAACCGGTTChGATTGCCTGCGCCCCCGCCTTGCCGCTGA  
TGAATCGTTTCGGCAGGCATTGATTCCTTTTCAAATACCGATGCCGTTTGAAAGATGTT  
CAGACGGTATCTTCCGAACAGACAGATGAATATGTTTCCAACTGGACAAATACTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 383>:

**GNMER94TR gnm\_383**

CACTACGTTCAATTTCCGCATTGCTGGTGCGGTCGTTCAATTTCTTTTCTAAATCTAATT  
CGCCTTGTTTTTTGCCTTTGGTTTGCAGGTTTAAATGGTGCCTTCATCAGCCAGCATCA  
CAAGGTTCAATTTGTCAAATCCGCCAATGTGGTTTGATTTTCCCGCCGGGTGCGAATAT  
CGTTATACAGCTTTTGAATGCTGGTAAATTTAATTTCAATGCCGTCTGAATGTGGGCTAA  
45 ATGTCTCCACTTTGCGAATAGGAATTACCGTATCGCCCTGCAAACTCTCTCGGTAAATA

AAAATTTTGCCTGCGTCGGATCGGTAAAATTAATTTCCGTTTTATCCACGATATTGTTTT  
GATTACAAAAAACAGAAAATGCCGATAACCTTTTTCAAATAATACAAACGCACCCTGC  
TGATGAACGATTGGACAGCTTGATATTACCGGGCCGA

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 384>:

**GNMER95TR gnm\_384**

AGCGGCACGGTTTGAAGCGGCCAGCCTATGCCGACTGTCGGGTCGTTCCATATTAAAACC  
TGTTCCGGCTTCAGGCTTGTAATAGTCCGTGCATTTATAGACGAACTCGGCTTCATCGCTC  
AGTACATAGAAGCCGTGTGCGAGGCCTTCGGGTACCCACAGTTGGCGTTTGTTTTCTGCG  
10 GACAGAATTTTCGCTACCCATTTGCCGAAAGTGGGGAGTCTTTACGCATATCGACGGCC  
ACGTCAATACTTCGCCGACAACCACGCGTACGAGTTGCCTTGTGTGTTTTTCAGTTTGA  
TAGTGCAGGCCGCGCAATACGCCTTGCCGGATTTGGAGTGGTTTTCTGCACGAAGGTG  
CGTTTCGCAGACTTGGGTTTTAGACCACTCGTCGCGGAAGTTTCCATAAAAAAGCCGCGC  
GCGTCGCCGAAGATCAACGCCGCCATCATCATCGTTTTGCCAGCACCTGTTGCCATATTG  
15 AACAGCAAATGCGTTGGCTTATTTTTAAATCAGGGAAATCGTCTAGCTTTGAAGTGCGG  
TCAAAAATCAAAAAGTTTTCAAGGGCAGATTTnTGCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 385>:

**GNMER96TR gnm\_385**

CGGCTTCGACCGCGCCGGTGTGGTCCGGATGTGCGGACAGATCGACTTTGTGTTTTTCGC  
CGTTTACTTTGAATGTGATGTAGGCATCGGGCAGGTTGAGTTTTTCGGCAAGGCAGCTGA  
GCAGGACTTCGCCGCTGCCGTATCCAGGACCGCGCCTTTGAGGGACGAGCTGCCGCAGT  
TCAAAACCAAGATCAATTTTTGGGACATTTTCTTACTCCGGAAAGTTTCAGACGGCATTG  
GAATCGGACACGGATACTAACC GGATTTCGTGCCGAATCCGTTTTGCCTTCCTGGCGGGGA  
25 AAGTAGTGGGGCCGTCTGAAAAGGTTGATAnAAGAACAGGCTATTCTAGCAnAAATCTTT  
GCAATTGCTTGGCTTAATCGGGCGTTTGCGTGAAAATGGCGGAAGTCACTTGGnGCTCAA  
GCAGTTTTTACGTCAGGAATGGCGGTATCAATGATGTCATCTTTTTATCTTTCATCTAA  
GGGCGTCTGAAA

- 30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 386>:

**gnm\_386**

AATTCAGAATCAATAGGAAGGTTAAAAAAGGATAAACTTCTTTTATAATTTCTCATCG  
TCTTTCAATTATTCGTGATGCAACATTAATAATGGTTATTAATGATGGTAAAGTACTTGA  
AATGGGTAATCATGATCAGCTGATGAAACAAAATGGATTTTATGCACGTTTAAACAATC  
35 TTCGGTTTCGTTAATAAATCTAATGACTGTTGCTGAAATTAAAAAACTTGCATTAAATAA  
TCAGGTATTTAATGAAGCAAAAGCGCTTTTAGAAAAAGGTAATGTTATTTTTCCGGGTAC  
CGAGCTCGAATTCGTAATCATGGTCATAGCTGTTTCTGTGTGAAATTGTTATCCGCTCA  
CAATTCCACACAACATACGAGCCGAAGCATAAAGTGTAAGCCTGGGGTGCTAATGAG  
TGAGCTAACTCACATTAATTGCGTTGCGCTCACTGCCGCTTTCCAGTCGGGAAACCTGT  
40 CGTGCCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAgAgcGgTTTTCGTATTGGGCG  
CTCTTCCGCTTCCTGCTCACTGACTCGCTGCGCTCGGTTCGCTCGGCTGCGGCGAGCGGT  
ATCAGCTCACTCAAAAGCGGTAATACGGTTATCCACAGAATCAnGGGATAACGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 387>:

-748-

**GNMES45TR gnm\_387**

5 GCGGTCGCGCCCAACAGCCCATTTACCTTCGTCTTTTTCATTTTGTCTTTTCTCCCAA  
TAAGCCCATTTTCCATCATCTCGATTTTGCCCAAAAGTAAAAACGGTGGCGGCTGATTGG  
GCGCAAACGCCCCAATGTACAACCTTAATCGCCCCAAAATTTATGCCAAAAACGCAACTT  
TAAACACGTACATTGGGAGGTGCGGCCCAATCAGCCTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 388>:

**GNMES47TR gnm\_388**

10 GCGAAAAAGCTAGCGCACGGCGCTGTTTCTGCGGGTCGATATCGAGCGGCCGCAGCCTAA  
GCTTGACAGGAATATTGGCCTTAAGTGACAGCATCGGCAAATCGTTGACAGCCCATAGGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 389>:

**GNMES52TR gnm\_389**

15 TCCAGCTCGGTAGCAATACGAATTCGAGCTCGGTACCAGGTTACAGGAGAAACAGATTTA  
AGAGGTTCTAATATTACAGCCGGTAAAACTTGGTTGTGCGCCACCACCAAAGGCAAGTTG  
AATATCGAAGCCGTAACAACCTCATTACGCAATTATTTTCTACACAAAAAGCGGCTGAA  
CTCAACCAAAAATCCAAAGAATTGGAACAGCAGATTGCGCAGTTGAAAAAAGCTCGCCT  
AAAAGCAAGCTGATTCCAACCCTGCAAGAAGAACGCGACCGTCTCGCTTCTATATTCAA  
20 GCCATCAACAAGGAAGTTAAAGTAAAAACCCAAAGGCAAAGAATACCTGCAAGCCAAG  
CTTTCTGCACAAAATAATGACTTGAATTCCGCACAAGGCAATCAAATAACCGGTTCCGAT  
ATTACGGCTTCCAAAAAAGTGAACCTTCACGCCGAGGCGTATTGCCAAAGGCAGCAGAT  
TCAGAGGCGGCTGCTATTCTGATTGACGGCATAACCGACCAATATGAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 390>:

**GNMET50TR gnm\_390**

25 TGAGCAATTTAATTGCCGCTCGGTACCCTAACATATTGCCGCCAAGCGGTATGGAAGCGG  
AAATAATGGTAGGTGGGCTTCAGACGGCATCCGCCCTCCCCGTCATTCCCGCGTAAGCGG  
GCATCCAGACCTTGGGATAGCGGCAATATTCAAAGGTTATAAAAGACCCGTCATTCCCGC  
GCAGGCGGGAATCCAGACCTTGGGATAGCGGCAATATTCAAAGGTTATCTGAAAATTTAG  
30 AGGTTCTAGATTCCCGCTTTCGCGGGAATGACGAAAAGTTGCGGGAATCCAGAACGTCGG  
GCAACGGCAATATTCAAAGCCGCTCTGAAAATTTAAAGTTCTAGATTCCCGCTTTCGCG  
GGAATGAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 391>:

**GNMET92TF gnm\_391**

35 CCGTCAAATAGGACTGCAGTGAAAGTCATTTTGCGCCCTCCTTATTTTCCAACGCAACG  
GTGTGGCTGCCGTCGAGCGTGATGCTTTGCCGTACACCTGCAAATCGAGCGACTCGCCT  
TTGAGCAGAGTGAAGACGACGTTTCTTTGCCGACGGCGACTTTAATCAGACGGCCGCGG  
TAGTTGATGTGGAAGGCGTAGCCTGTCCACGCACTCGGCAGGAACGGTGCGAAGCTGAGT  
40 TTGCCGCCCCAGGTTTTTCATTTGGGCGAAACCTTGGACGATGGCGAGCCAAGAGCCGGTC  
ATGGAGGGGATGTGCAGGCCGTCTCGGTGGCGTTGTTGTAATTGGCCAAGTCCAAGCGG  
GCGGTGCGCTGGGACATTTCCACGGCTTTTTTCGTCTTGCCCAATTCGGGGGCGAGAATA

GAGTGAATACAAGGCGACAGCGAGCTTTCATGCACGGTCAACGGTTCGTAGAAGTCGAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 392>:

**gnm\_392**

5 GCACAACTTAATTATGTTGCCTGAAACATCATATAAAAAGATAATAAAAGGTACGCAGCCA  
TGAATTACGCAAAAGAAATCAATGCGTTAAATAACAGCCTTTCGGATTGAAAGGCGACA  
TCAACGTTTCATTGCAATTTTCCCGCCGAAAAACGAACAAATGGAAACCATGCTGTGGG  
ATTCATCCATCGCCTGCAAACCTTGACCCGAAATTTGTTTCCGTAACCTACGGTGCAA  
10 ACTCAGGCGAGCGCGACCGCACACACGGCATCGTCAAACGCATCAAACAGGAAACCGGCT  
TGGGAAGCCGCGCCTCACCTGACCGGTATCGACGCTTCTCCCGACGAATTGCGCCAAATTG  
CCAAAGATTATTGGGACAGCGGCATCCGCCGATTGTGCCCCTGCGCGGAGACGAGCCGG  
CCGGTTATGAGAAAAACCGTTTACGCCGAAGACTTGGTTAAGCTATTACGCTCCGTCCG  
CCGACTTCGACATCTCTGTAGCAGCATATCCCGAAGTGCATCCCGAAGCGAAATCCGCAC  
AAGCCGACCTGAWTAATTTGAAACGCAAATCGATGCGGGCGCGAACCACGTCATCACC  
15 AATTCTTCTTCGATGTGGAACGCTACCTGCGCTTCCGCGACCGCTGCGTGATGTTGGGTA  
TCGATGTGGAATCGTCCCGGTATTTGCCCTGTACCAACTTCAGGCAGCTCGGTAAAA  
TGGCTCAAGTAACCAACGTCAAATCCAAGCTGGCTGTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 393>:

20 **gnm\_393**

CGGCTGTCTTCATTGGCGTACGGCGCGCTACTGCTCACACCGGTACTACCCGAAAGTTAT  
GCAGCAAGCGTAGGACGTGTCTTCAGCACGCACGCGTCTGAACAGTATACAGAGAATCTG  
AATATTTACTgCATAACAAATGCCGTCTGAAAAATTGTGAGCTTTTCAGACGGCATTGAG  
25 CCGTAAATCATGGAACGCGTGCGCGCTGAAGCACACACCTTACGCATGGATTTTAGGTTT  
CATGCAGGCTACAGCTTGCTTCCATAAATCATTTTATCAGAGCTCGTAGGTACGGTTAA  
GCTTTTAGGGTTAGCCGGTACAATGTGAACCTCATTTTACCTGAATGAATCGTACCAAA  
ATTGGTACTTAATCCTGATTTCCCATCGCTGCCTATAGGATACCCAAAATCAACAACAGG  
ATTTCTCTTGCTCCTTTAGAAATAACTGGATAAGCACCTGAATGTATTCCGTTCAACAA  
TTCTTGAGGATTAATGTTTTGATTTAAAGTACTCTTACCTTCAATGTAGTTTCTATGTCC  
30 TGAAATATGTTTCCCTTGAGCTCCATCATGAATTTTAGTCCCAATAGATTTGCTTTAA  
ATCAACATTGCGGGTTTGAAACATTTCTCCATCTACAGACTGAGATAATCTTGAAGCAGT  
GTTATGCCTGTAGGAGTCTGAGAAATCCCCACTAACCGCAGCCTTCCCCGGTTTTGGCGC  
CTTTGTACGGTTTTTGA

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 394>:

**gnm\_394**

GACGGCGAGCATAATGTCGCTGTCTGTTTCGTTTCATCTGGCAGCCGAAGGTGCGGATAAA  
TACTTTTTTTCATGGTTGTGTCTTCTCAGGCAGCCGTAATCGCGGGGCTGATTGTTGTTG  
40 GAATGAAAAAATTCAGACGGCACGACGATGCCGTCTGAAAAATCGGTGCGGATTATAGCA  
CGATGTGGGTTTTGGAGGCAGGATATGTTTTAAATATGAATTTAATCGGTGCGGACGG  
CTGTATAATGTTTGGCTTTAATGGGAGATGTGTATGAAACCGGCTGTATGGGCGGCATTG  
CTGCTGTGTGCGTGTACCAGCAATTCGGCGACAGGGAACATCAGTTCCTGCGTTATAGT  
GGATTAACAAAAACAGTACAGCGTTGCCTCGCCTTGCCGTACTATCTGTACTGTCTGCG  
GCTTCGTCGCTTGTCTGATTTTGTAAATCCACTATATCAGACGGAAGAGGGAATCGC  
45 ACTGGATTGAGCCGAAATGCCGTCCGAAAAACAGCAGACCGATGCCGTCAATCCCGCGCAG  
GCGGGAATCCAGACCTTGGGATAACGGCAATATTCAAAGGTTATCTGAAAGTCCGAGATT

CTGGATTCCCACTTTTCGTGGGAATGACGGGATGTAGGTTTCGTGGGAATGACGTGGTGCAG  
GTTTCCGTATGGATGGATTTCGTCAATCCCGCGCAGGCGGGAATCTAGAACGTAAAATCTA  
AAGAAACCGTGTGTAAACGGCAGACCGATGCCGTCAATCCCGCGCAGGCGGGAATCTAGA  
CCATTGGACAGCGGCAATATTCAAAGATTATCTGAAAGTCCGAGATTCTGGATTCCCACT  
5 TTCGTGGGAATGACGGGATTTGAGATTGCGGCATTTATCGGAAAAACAGAAACCGCTCC  
GCCGTCAATCCCGCGCAGGCGGGAATCTAGGTTTGTGGTGCGGAACTTATCGGGTAAA  
ACGGTTTCTTTAGATTTTGCCTTCTAGATTTCGCACTTTCGCGGGAATGACGAAGAGTTGC  
GGGAATGATGGAAAGCTATGGGAATAACGAAGGGTTAAAGTAATCACGGGATGGTGTTCG  
CGGGAATAT

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 395>:

**GNMEW92TF gnm\_395**

GGTTTCGCTTGTTTTAAAGTTTCGGGTAACCTCCACTTCCTCAATCCACGAAAGTGGGAA  
TCCAGTTTTTTTCAGTTTCAGTCAATTCGAGAAATTGCCTTAGCATTGAATGTCTAGATT  
15 CCCGCCTACGCGGGAATGACGGATTTTAGGTTGGGGGCATTTATTGGAAAAAGCACAAAG  
CTGAAAGTCCGCATTCGCGCAAGCGGGAATCCAGTGCCTTGAAGTTTCAGCTATTTAGA  
ATAAATTTTGGGACTCTAATCGCGTCATTCACGAAAGTGGGAATCCAGGACGCAAAAT  
CTCAAGAAACCGTTTTACCTGATAAGTTTCTGCACTGACAGACCTATATTCTCGCCTGCG  
CGGGAATGACGAATCCATCCATACGGAAACCTGC

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 396>:

**gnm\_396**

CCGGCGAAGTCATCGCCGGCGCGCTCGGCAGAGACCTCAAACAATGCGCCGTTTACGGC  
CGCGAAGGCCACACCGGTCCGCGCGATCCGTGACCATCGGCTTTGCCACCGTCCGCGCA  
25 GCGGACATCGTCGGCGACACACCGCCCTCTTCGCCACCGACGGCGAGCGCGTGGAAATC  
ACCCACAAGGCCAGCAGCCGCATGACCTTTGCCGCCGTGCCGTCCGCGCCGAGTTTGG  
GTCAACGGCAAAACGGGTTTGTACGATATGCAGGACGTACTCGGGCTGAACAGCCGTTAA  
CCCCCATACAAAATGCCGTCTGAAGAATATTGTTACACGCGCATTTTGCCGACAGGCTC  
CGTATCGGCATATCAATGTTTCAGCACACAGGACGACGCATAAAGCGTCGCCCTATGTGT  
30 TGCCCTGAGTCGGCACGGGTTACGCCCTCCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 397>:

**GNMEW95TR gnm\_397**

GTCCGATGTCTGTATTGATTCCAGATCAGTCACCATTTTTTGGGAGTCTTCAATGGTTAT  
35 ATCGCCAAATTCTTTCCATGAGCTTTGAACTGTCCATTTAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 398>:

**GNMEZ23F gnm\_398**

TGGTTTTGGGTGGGTCAAACAACCTCTACTTACATGGATCGGCAAAACGACGATACCAA  
40 CTGCAATCACTTCGTCAATCAGGTAACAGTCAAACCTCCACCGCCAACGACAGCGCAAAAG  
CCAAACGCGCTTTTACCTGAAGAATAGCGTTTCACCGGCTCATACAAATATTGCCCA  
GCTCCGAAATCTTCCGTAAACGCTTTCACATAATCGATATCGACATTGTAAATCCGGC  
AGATGAAACGCAAAATTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 399>:

**GNMEZ79TR gnm\_399**

5 TCCCTCTGGCCTGAACCAAGCCCGAAATTATACCTGCAACATCCGACACAAACAAAGGCA  
TTTCAATATTTTTATTTCTATGAAATAAAGCGTGTAAGCAGGCTTACACGCTTTTATTT  
GGCTGGGGAGGAAGGATTGCAACCTTCGCATGCTGGAATCAAATCCAGTGTCTTAACCG  
CTTGACGACTCCCCAAAAGGGCTGGCTGGGGAGGAAGGATTGCAACCTTCGCATGCTGG  
AATCAGGATCCACTGTCTTAACCGCTTGACGACTCCCCAACTCGCTTGACTTGGCTGGGG  
AGGAAGGATTCG

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 400>:

**GNMFC24TR gnm\_400**

15 CTCGAGGGAATTGACCGGCAATTCTTCAAGCAATAAACAGGAATACCAATTATTAAAAGA  
TAACCTAGTCAGATCGTACAATAAAGCTTTGAAGAAAAATGCGCCTTATTCAATCTTTGC  
TATAAAAAATGGCCCAAATCTCACATTGGAAGACATTTGATGACCTCATTTCTTTCAAT  
GAAGGGCCTAACGGAGTTGACTAATGTTGTGGGAAATTGGAGCGATAAGCGTGCTTCTGC  
CGTGGCCAGGACAACGTATACTCATCAGATAACAGCAATACCTGATCACTACTTCGCACT  
AATTTCCC

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 401>:

**GNMFC24TF gnm\_401**

25 AATTCCCCGAGGAATTATTCGATAAAGATAAGCTTACATTATGAAGAGCAGCATATTACA  
GCCGTATGGGTCTACTTGACAGTAAATTTGAAGAGCATTGGAAGCCTGTTGATGTAGAG  
GTCGAGTTAGATGCAAGTTCAAGGAGCGAAAGGTGGATGGGTAGGTTATATAGGGATAT  
A

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 402>:

**GNMFC32TF gnm\_402**

30 GCAGTCGACAGTAGnAGATCCCCACCCGTACCGATGCAGAAGGCTATATCGAGAACTGC  
ACATTACCCCCGCCAATGCCATGAGTGCAACACCTGTCGCCGTTGTTGGAAGGTCTGC  
CCAAAGGTACGACCGTCTATGCCGACAAAGGCTATGACAGTGCGGAAACCGGCAACATC  
TGGAAGAACATC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 403>:

35 **GNMFC63TF gnm\_403**

CGATAAAAACCTGCGCTATCACGGCCTGATGCAGGGCATTTCGCGCGAAAAATCCGACGA  
AATCTTCAACTACATGGAAAAATTGCGCGGCTACGGTTTCAACAAATCCCACGCCGCCGC  
CTACGCCCTGATTTCTACCAGACCGCATGGCTTAAAGCGCACTACCCCGCCGAATTTAT  
GGCGGCGACCATGTGCTCCGAATTGGACAACACCGACCAGCTCAAGCATTTCTACGACGA  
40 CTGCCGCGCCAACGGCATTGAGTTCTTGCCGCCCGACATCAACGAATCCGACTACCGCTT



5 CACGCCGTATCCGGACATGAAAATCCGCTACGCGCTCGGCGCGATTAAAAGCACGGGCGA  
GCCCGCCGTGAATCCATCACCGCCGCGGCAAAGCGGCGGCAAGTTACCGGTCTGTT  
GGACTTCTGCGAGCGCGTCCGCCAAGAACACATGAACCGCCGACCCTCGAGGCCCTGAT  
ACGCGGCGGCGCGTTCGACAGCATCGAACCAACCGCGCCATGCTCTTGCGAACATCGA  
CCTCGCTATGGACAACGCCGAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 404>:

**GNMFD08TR gnm\_404**

10 ATTACGTATCGAGGCATTGAGCTCGGATACCCGGGTTAATATCAGATTTTGGAGCAGTA  
AAATTTATTATGTACACTAATCCAAAACAAAATCAAATATTGAAAACCTAGATTTATTTTC  
GAATAAATAGAAAGCCGTCCTTATATATAGTAATAAATTAATAACCCTGTTTTCTATTG  
CCTTTATTGTGCCATGCAGTTGAGTTTGATGAACTCAATATAACGACTGTAAAGATAAA  
TCTATGTTATGTGCTGTCAGAATTGATTCTCCCAAAGGCAATAACTATAGTGGATTAACA  
15 AAAATCAGGACAAGGCGACGAAGCCGACACAGTACAAATAGTACGGCAAGGCGAGGCAA  
CGACGTACTGGTTTAAATTTAATCCACTATATAAATCTATGTGGTTTGACAATGGCAAGT  
TAGTATTTATATCCTTTACTAATCAACAAATGGAAAATCAAAGTCGCCCATCTCTAGCGA  
TGTTTATTAGTGATGACAAAATATCCAGTACCAATATTGATGAATTTTGTAGCATCTTTCG  
ATCCTGATAAATATCGAATATTTTCATGATCCAAGATATAAATTTTACCTAGTATGTCGA  
20 ACTCATTGTAATCCTTATTCTCTTTTGATATTGATAGCAAATATAAACCTGATGAGAAA  
GATAAAATCTTTTTTCAATCAGACAGATAACACAGATTTTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 405>:

**GNMFE17TF gnm\_405**

25 GTTATCCAAAGGAGGCTGTGCAAGGCAAGGCATGAAATCGAGCAGTCCGTATTGTTTGAC  
TTTGTGCGTGGTCAATGACGACTTGGCGCGAGCGGAGGAGATTGCGCCATATTGTGAAT  
GCCTGCCGTCTGAAAAGGTCGCGGCAACTGGGGTTTATTGCAGATTTGTTGGAAAATTCC  
TAGAAAACGGCGAAAATACCCGGTTTCCCAATTTAAATATTTTGAAAGAAAGCAAATAA  
TATGGCACGTATTACCACCGAAGACTGTACCGGAAAAATTTCCAACCATTTTGACCTGAC  
30 ATTGGTAACGGCTCGCGGGGCCGGCAACCTTGAAAACGGCAACACGCCGCTTGTGGACAA  
TGTCGCGCACTACCAAACCGACCGTTACCGCCTTAAGGGAAATCGCCGCCGGACATATCGG  
TACAGAACTGTTGACGCGCAATAAATAAATTTGCGCGAAACGCACGCCGGAACACTTTG  
CCGCCGTGCAGTCCGACGTTTGAAATGAAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 406>:

35 **GNMFE18TF gnm\_406**

CTTTGGATGAAGATGGTGAATGCACGCTTTGGTTCGGACGGGTGCGAAATGCGCGCTTTTCG  
ACTTGCCCGACCATAAAATTTTCATACAAAACAGGGCTGTTGACGTTGAGGATGCGGTTCG  
TTTTTACCAATCAAATTCAGCGCAGCCCGCTTTGCCCGATGGCGGTAACGGGCGGAATG  
TCCTGCACTTGGAACACGTCTTTTGCTCGTCGCTTTTGCCGGGTGTAAAGGCGATGTAC  
40 GAACCCGAAAGCAGCGTACCCAAACCGGTTACGCGCTTTGGTTCGATACGCGGCTTGACA  
ACCAAACTGGGTAACCTGCGGATAAGGCCGAATACTTCGGCATTGATTTGGGCGGTTA  
CTTCAACGCCTTTTTGGTCGTGCGCAGTTTGATTTCGGGTAACGCGTCCGACATCGATGC  
TCAATACTTTGATGACCGTATTGTTGACCTCAATGCCTTCCGCGCTGTCCATCAGGAGCG  
TAACCACAGGCCCCCTGTTGCGGATTTCTTAACCCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 407>:

**GNMFE54TR gnm\_407**

```
5  CTCGGCTACCCTGCAAATTCAGATTCCCGTCTGCGCGGGAATGACGATTCATAAGTTTC
   CCCGAAATTCACATAACCGAAACCTGACAGTAACCGTAGCAACTGAACCGTCATTCCCA
   CCACTTTTCGTCATTCCCGCGAAAGCGGGAATCCAGAATCTCGGACTTTCAGATAATCTT
   TGAATATTGCTGTTGTTCTAAGGTCTGGATTCCCGCCTGCGCGGGAATGACGAATCCATC
   CGCACGGAAACCTGCACCACGTCATTCCCACGAACCCACATCCCGTCATTCCCGCAAAAG
   CGGGAATCTAGGACGCAGGGTTAAGAAAACCTACATCCCGTCATTCCCTCAAAAACAGAA
10  AACCAAAATCAGAAACCTAAAATCCCGTCATTCCCGCAAAAGCGGGAATCCAGTCCGTTT
   AGTTTCGGTCATTTCCGATAAATTCCTGTTGCTTTTCATTTCTAGATTCCCACTTTTCGTG
   GGAATGACGGCGGAAGGGTTTGGTTTTTCCGATAAATTCCTTGAGGCATTGAAATTCCA
   GATTCCCGCCTGCGCGGGAATGACGATTCATAAGTTTCCCGAAATTCACACATAAGCGAA
   ACCTGACAGTAACCGTAGCAACTGAACCGTCATTCCCACCACTTTTCGTCATTCCCGCGA
15  AAGCGGGAATCTAG
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 408>:

**GNMFF86R gnm\_408**

```
20  GAATGACGATTCATAAGTTTCCCGAAATTCACACATAACCGAAACCTGACAGTAACCGTA
   GCAACTGAACCGTCATTCCCACCACTTTTCGTCATACCCGCGAAA
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 409>:

**GNMFG09F gnm\_409**

```
25  CCGACTACGATTTACTTATAAAAAATGGACAGACAGTAAATGGTATGCCTGTTGAAATTG
   CAATTAAAGAGAAAAAATAGCTGCTGTTGCACAGACTATTTAGGTTCTGCAAAAGAAA
   CTATCCACTTAGAACAGGTACTTATGTATCCGCAGCTGGATAGATGATCACGTTTCATTG
   TTTTGAAAAAATGGCTCTTTATTATGATTATCCAGATGAAATTCGGGTCAAAAAGGGTGT
   TACGACAGTGATTGATGCTGGGACAACAGGTGCTGAAAACATTCATGAATTTTATGACTT
   AGCGCACAAAGCAAAAACAAATGTTTTGGATTAGTCAATATTTCTAAATGGGGCATCGTT
30  GCTCAGGACGAACCTCGCAGATTTAAGTAAAGTACAAGCGAGTT
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 410>:

**GNMFG29F gnm\_410**

```
35  AAATCAGAGAAGCTACTGCGAAAGTTGCTGCTGAAAAAGGTGATCAAAATGGATAAGCGT
   TCGGTGCTATGATGGATTAAATTCGTTGGAAACTGATTTAGACAGTTCAGTGACACAATT
   AAGAGAAATTAAGCAGGGCTCCATGAGTTGGTAGAAAAAATACCACGTTGGAAATCGG
   AAACCAACGCTTACGAGAGCATCTCCAAGAACTGAATAAGTTAGCAGGAAATACAACCTGA
   AACTGAAAAACAAGAGCTATCAAAATCTCGTATGAATTTGGAAAACTTTATGAAGAGGG
   CTTCATGTCTGCAATATTTTATATGGTTCAAGACGTGAAAATGATGAAGAATGTGCCTT
40  TTGTCTTGATGTTATTTATGGGGAAC
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 411>:

**GNMFI01F gnm\_411**

CCTGTCGACCCAGATGGTTATAAAATCGAAGTCATTGCTGAGTGTTAAAAAGTTTCACTT  
GTCACTTACTGAGCTTTTTGTGTTTGAGAGCTGTCCGAGACAAAACCTGTCTCGACTTC  
TTCTCAAACACTTTTTTCAAAAAAAGTGCTACAATAGAACGTATGAATTTATGAGGATG  
5 TGATGTTATTATGACAAAAAAATTATTGGAATCGCTGGCAATCAACTTTTGCAGGCAGC  
TGAAGTGTTTACGGTAACCAAGTGACGTACACCCACAAGGTTTTGTCAGCGCTGTTCA  
AGCCGCAGGTGGCGTTCCTCTCGTTTTGCCAATTGGCCCCAAGAATTAGCCGCTACGTA  
TATACAACAAATTGATAAA

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 412>:

**GNMFI03F gnm\_412**

CCGGTGAGTTGCTGCTTTTAATATACTCTCATCTTTTATTGTTTCTGCTTCTTGTATTTT  
GCTTTCATATTCTTTTTCTAATTCTTTTACTTGATTACTTAAAGTTAAACTCTTTTCATT  
GATAATATCTTCGATGGAATTATTTACTGAATCTTTAATTTATCAGTTTGTCGATAAAG  
15 TCCGTATAATTGTGTAAGTAAAAAGGCCATATAACAGTCCTTTTACGGTACAATGTTT  
TTAACGACAAAAACATACCCAGGAGGACTTTTACATGACCCAAGTACATTTTACACTGAA  
AAGCGAAGAGATTCAAAGCATTATTGAATATTCTGTAAAGGATGACGTTTCTAAAAATAT  
TTTAACAACGGTATTTAAATTTTCCAAAAAACCC

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 413>:

**GNMFI04F gnm\_413**

CCGGAAAGAAAAAATATTACTTTAGTTGAGTTAAGTGAGGAGTTAGGTATTCCACGTTT  
CACTCTTAATAGGTATGAAAACGAAGATAGCGAACCAAAACAAGAACTTGGGAAAAATT  
AGCTGATTATTATGGTGTCTTCTACGGCTTATTTAATGGGGATATCCAACCAAAAGGTTAG  
25 CGAAGAAAAAGCTTTGACGGCCGCAAGAAAGTTTATCAAGTCTATCTTCCGACGACGA  
TTTAGGAAAAAGAAATTCGAAAAGCTCTAATGTATTTTAATAAAAAATGATTAGATAGTGT  
CTTAAACAAGCAATGCAGCAGTATTTTACTATCCCAGCCGTTGAATGGAATACAGAATT  
TCAATCTT

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 414>:

**GNMFI05F gnm\_414**

TGCGCCGCTGATTCTAAATCATTTTGTAATCGTTCGTTTCAGGGATAATCGCTGCTATTTT  
CCAAGTCGTTTTTGCGTTATTTATCTTTTATAATTCTATCGGCACAACTCGTTGACGGT  
TATTCTGATTATGTACTTATTCTCAGGATTCTAGCAACAGTTGTTAAACGGAAACGGAT  
35 GAGTGAGCAAGTTTTCCAGCTTTAATGTGGGTAGTGGTCTTTCCTGTTTTTCATGGCGGT  
TGTCTTAATGATTTATCAAGGGATGAGTTTAAACAGATGGTAAAACGTGGACAGCTTTAAT  
TTGTGCAAGTGCAGGAACGGTACTTTTCATTTTAGCAACAATGGGCTTGCATCCATATAT  
CGAATTATTAGT

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 415>:

**GNMFI07F gnm\_415**

CCGGCCTATCGATTTCCCCACATTTACAGTTGGCAACTGGCGGTGGAAGCGTTATGCCCA

5 TAGTGGTCTATTTGATTGGATAAAAAATCAAGGACTATTCTCCTGAAGAGTTAGCATT  
ATTTTTATATGCTCCACAACAAAACCTAGCTAATCCACCCAAAGAGTGGCCTCATACAGC  
TTTGTATGAAGGAATCGTCCCGGTATGCAACGTAGCATATTGCATACAGACGAAGGCAA  
ACGTCATCAAAAATACCTTAATCACTTTGTTACCGTAAAAAGATGTCCTGATTGTTTAGG  
AAGTAGAGTCAATGAACGTGTTCTAGCTGCAAAATTAATCAGAAAAGTATTGCTGATGC  
TGTTGACATGCCACTCAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 416>:

**GNMFI08F gnm\_416**

10 ATTCACCTAACTCGTTAAGCACCGAAGCTTCAATCAAGCAAGGGTGCATTTATTTTGC  
TTCCTTAGTCAATCGAGCAAAGGATATCGGTTGTGATCAAGAGAGCATCATTCAATCGTA  
TAACTATGGTGGTGGATATTTAGACTATGTTGGAAAAATGGAAAGAAGTACAGCTTTGC  
CTTAGCGGAATCTTTTCAAAGAAAAATCAGATGGGGAAAAAGTGACCTATTCGAATCC  
AATCGCTATTAAGGAGAATGGTGGTGGCGTTATAACTATGGAAATATGTTTTATGTAAT  
15 GTTAGTGAACAATATCTTACTACAACGAAGTTTGATGATAAAACCGTTCAAGGAATTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 417>:

**GNMFI09F gnm\_417**

20 CGGAGTTTGTGATGAAGATTGTTATCAAGAGTGTATGATTAGGTTATATTTAGCTTTGAAA  
AAGTTTGAAATACGTGAATGATACATTTTTGAAATAACAGACTCCGTCTACCACTCTTTA  
TTATTACTGTTCAAAGATATGTTCAAATACCTTAACCTACTTTGTAAAAAATATAAA  
AAATACTGAAAGATTACTTCATTTTATTAATTTAAATCTATTGAATCATGTAGAGGTGGC  
GTTAACCATGTATTTATTTTTATTAGGCATGTTTATAGGATGTTTGCTTGGTATAACGAT  
TTTAAATTGTTTAGCCATTGCAAAATATGATGATATGAGTTCTGGAAGAAATTAGCTCTT  
25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 418>:

**GNMFI10F gnm\_418**

30 CCGAATTTTTCTTTTTACATCCGAAGGTTTACTACTTCATTATTAAGATGTTCCCAAACA  
ATTTGCTCTGGCGGTGCCGTTTTATTATAAATACGGTAAACAATACGATCTAATGATTTT  
CCAAGAAGTGATTTCCCGGACACCTTTATTTGTACTGTTGCCTGATCGTCTACAACTACG  
GCATCAACATAGAAATAGAGCCCTTCCATATAAATAACAGTGTCTGGAACAAATATTTGT  
ATATATAAAGGTGTCAAACCAACAACAGCTCAAACGTTGAATAGGTATAGTAATT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 419>:

35 **GNMFI11F gnm\_419**

CCTGATTTTAGCTTTATCGAAAAACCATTAAATTACGAAAGGAGCAACTCGTGAAGAAATT  
ATTGAGGATCAATTGGTTTTAGCTGGGGACCCTGCCAATCAGAATTGGTTGGTACGTGAA  
AAGGATTCTGGGGTCTTTTATTATACCCAACAGTATTTAGAAGAAAGTAATCAAAGCCCA  
ACACTCATGACGGTTAAAAACAATGAAATGATTGTTAAATGTTGGAATTGGGCATGGGG  
40 CAATCGTTGCTTTCAAGAAAAGCGATTACTGAAAAAATTCCTTTCCAAACGTTAGGTGAA  
AAGTATTGGCGTACCTTTAATTTATTAACACGGGGACATTTAAATCCTCCTTGCTTCAA  
GAAGTAAACAAGCAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 420>:

**GNMFI12F gnm\_420**

5 CCTACTAGAAGCAATCGCGCAATATCATCGGTATGCAAGCCTGTTGTTGGTTCATCCAGA  
ATATAAAAGTTTTTCCATTAGAATTTTTATGAAGTTCACTCGCTAGCTTCATCCGCTGT  
GCTTCCCCACCAGATAAAGTAGTTGCCGGCTGCCCAATGTCACATAGCCTAAGCCTACA  
TCCACAATTGTTTGAATTTACGATGAATTTAGGAATATGTTTGAAAAATTCTACGGCA  
TCTTCCACCGTCATATCTAAAATATCAGAAATGTTTTGCCTTTATAATGAACTTCTAAC  
10 GTCTCAGAATTATAACGTTTGCCATGACAACTTCGCAAGGCACATAGACATCAGGTAAA  
AAGATGCATTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 421>:

**GNMFI13F gnm\_421**

15 CCGGGGCTTTCAAATTGGCTAGCTCTGTTCTTTTTTCAGCCAACAGTTGTTCTTGTTTAG  
CCAATTCGTCTTTTTGCTTTTCAAGCATCTCAGCTGGAATTCCTGGTTGTTGCTCCAAC  
GCGCAAGTGCTTGTTCCTGTTTCCAGCGCTTGCCGACCTTGTTAATGTCCGGCTGAG  
CCGAATCACGCAGAGCCGCAACCTGTTCTTCTGGCCGATTTTTCAGTGCCTCTTTACTT  
GATTTAAGGCTGCTCTCTTTTCTTTTCATAATCAGAGGAATACGTATTTTGATGTTTTA  
20 ATGAACGAAATGAGATTAGCAATCTTGATAACCGTTGACTGTCAAAGGCTTTTTCCGAAA  
CCACGCCAAAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 422>:

**GNMFI14F gnm\_422**

25 CCGAATTGGAGGGTAAACCTTTTTCAATTTTTGTTAATGCAGGAGAGAAAGTTACTACCG  
AAACATTATTAGCCGAAGTTGATTTTGATCAAATTAAACAAGCAGGAAAAGATCCATCTG  
TCATAGTTGTTTTACTAAACCTGAACAAGTTAATGAAGTCATCTTAAATAGTTATACAA  
CTATATATGGTGATTTCGTGTGGTAAAATTATACTTTGACGTAGAGTTAAGTATGTTATCG  
GATTAATTTAAATGAATAAAAGGTGATTATAGACTGTGAGTTATAGAATTTAAGTAAAT  
TATATTAACAAAACACCCTACTATTATATAAATCAGTAGGGTGTTTTCTACTTATCCGAA  
30 CTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 423>:

**GNMFI15F gnm\_423**

35 CCGTTTTGCAATTTTACTACGTACTTACCAGTGAAAAACATTTCCCTTATTTAATTCT  
TGGTTTTACTGTAAGTCTTTACTAGGAACAATCTTTACAAACATGCACTTTTAGGAAC  
ATCTGTTGCGAGCGTTGTGAAAGACTTCAGTGGTGTATTTAACGCACTACCAATGTTAGC  
AGTCGCTTTAATTGGTTTCGTTTAGCCGCAATTAGCTACAAAAATGGTCAAATGATTCC  
GAGTGGGCCAGCAGCCAAAAAAGAACATGCAGCGAATGATTGAGACGAAGGAGAGATTGA  
AGATGACGAAATCTAATTATAAATTGACGAAAGAAGATTTTAAACAAATTAATCGCAGAA  
40 GCTTGTTTACTTTCCAAhTTAAhGGGGGGGTTTTTTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 424>:

**GNMFI16F gnm\_424**

CCAGCCATTGCAGTCGAAGAAGTTGATTTTTTAACGGAAACAATTAAAGAACCGAACGCA  
GTAGTAGTTCCGTTTCTTTCAAAAAGAGGCGTATAAAGGGAGGAAGAAGGAATGGAATTT  
5 GTAATCATTTTGGCTGAAGTCATTGCTTATTGGTGGTTTACTAGGTTTTGCAGCTGGCGCA  
GGCGCTGCTCGGATGTTTCATGCACCACAAACGCAAGGGTTAGGGGCATTTAGAACATTA  
GGAGAAATGAACGCGGCACAAAGGAGATCCAGCATCACACTTTTCTTTGGTTTAGGTTTT  
TTCTTTAATGCTTGGGCTTCGGCCGTCGGAGCAGGGGCCTTTACACAAGATGTGACCCAC  
CGGAnTTGTTT

- 10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 425>:

**GNMFI17F gnm\_425**

CTGAAGATTATCATCATGTAAATATACAGATGAAGCGATTAACGCAGCAGCAAACCTTAT  
CCAATCGTTACATTCAAGATCGCTTTTTACCAGATAAAGCGATTGACTTGTTAGATGAAT  
CTGGTTCAAAAATGAATCTAACTATCCAACCTCGTCGATCCAAAACAATTGATAAAAAAT  
15 TAGCAGAAGCGGAACAACAAAAACAACAAGCTTCCGCAGAAGAAGATTTGAAAAAGCGG  
CTTATTATCGTGATCAAATCAATAAATTACAAGCAATGAAAGAAAAACAATCAGCGATG  
AAGAAACACCACTCATCACTGAAAAAGATATTGAAGCCATTGTGGAACAAAAAACTGGCA  
TTCCTGTGCGTGACTTAAA

- 20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 426>:

**GNMFI18F gnm\_426**

CCTGTGAATAATCCAGCCAAATTAATCGCTTTAACTGCCTTAAGTTCTGTGGGAATTAAC  
TTACTAGTTGGCGAACAATATTTGTCAATTATTTTACCAGGGGAAACATTTAAATCCTCA  
TTTACTCGTTTAGGTATTGATAAAAAATATTTAACTCGTACTTTGGCAGATGCTGGGGCG  
25 GCAGTCAACTCGTTAATTCTTGGGGAGTTAGTGGTACCTTCATTATGGGAACGTTAAAA  
GTTGGTGCAC TAGAATACTTACCATATGCCTTTTTCCATTGCTTTGTCCCATTATCACC  
GTCATTTTGGGGATATTCTTAAAAAACAACAAGGGGAAACAAAAAGCACCAGGGACT  
A

- 30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 427>:

**GNMFI20F gnm\_427**

CGAGGGACTTTACAATCAGTTGGTCAGGTTGTGCCAGTGCCAATATGGTCAATGAGAAC  
GCAGTTCAACTTGCGATGCTCTTTAAAATTATGCGGATTGCTCTACTCGTAGCAGTTGTC  
TATTTATTTGGACGTTTCAAGCAAAGTAAGACGGCAGAATCAGAGGCTGAGTTGGTAGAA  
35 GTCACCAAAAAAGCAGCGCCCTACCTTGGTATGTAGTTGGCTTTTCATTGCCTGTGTC  
TTTAATAGTTTGATTCATTTCCCGTCGTGATCAGTGAGACTGCTCATTTCTTTAGTTCT  
TGGTTTGAAATTACTGCCTTGGCAGCAATCGGGTTACGACTCGATTTTAAAAAGTTTTTC  
CA

- 40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 428>:

**GNMFI21F gnm\_428**

CCGGCGCACCAACTTGGAATGGCCGAGAATATGTACAACGCTTAATCGCAGCTGCAGGTA

5 TCAAACAAGACTATAGGACGTCATTAGCCCAAGCTCAATTAATTAATTGGTGTATGTTCA  
ATGGGCAATGGTTAGGACAAGTAAGTCCATTAACAGTTGATGAATTTAAAGTTGTCAGCT  
CGCCTAAAACAGCTGCTTATGCGTTTGAATTAACTTTGAACGTCCAGCTGCAGCACATC  
CAGAAAGACAAACCTATGCACAAGCATGGTATGACAAATTCAAAGATTTGAAAGCTTCTA  
CTGCAACAGGAAAAGCTGGCATAGAACATTTGGAGACCTTAATGGGCAAATGGCTTGGTA  
ATGGGCAATGTTATGCCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 429>:

**GNMFI22F gnm\_429**

10 CGAACTGGTTGCCAAAGAACTCTACCAAGACTCGACTGCAGCAGTTAATCGAACTTTTCC  
ATATAAAGAGCAACTTTTTACCATTGTTGGCGTGACAACCAATACCAGCGGTGCCATTGG  
TCCAGGTAATGATGACTCATTGCTTTATTTTCCAAAAAGACCTATGAACATTATTTCCG  
CAAGCTAAAAGATACATCTACGTTGAACTAACAGTAGCACCTGGCTATCAACCAGATCA  
15 AGTATTGAAAGAAACAATAAAAACTCTCTCTCAACAAGGAACCATGAAAAACAGTGGGAC  
GTATCAAGAATATAATGTTAAAGATACCATCAAAGAAATGGGCTCTTTATTAAATAATT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 430>:

**GNMFI23F gnm\_430**

20 CCTGATTACGGTCGTTATTATGATGCCGTTTATGAAACGTTGAAAAATGGTGCACCGCAA  
CTAGTAATAAGAGCAAGCATTAACTAACATCGAAATTTAGAACGAGGTTTCTTAAC  
CCAAGTCCAAGTGTTTATCATTGAAAGAAAATAAGCGTATTTAAATGACTTGAAAAG  
CGCCTGCCCTACAGTCCAGACAACCTGTGGGGCAGGCGCTTTTATTATATAAGAATTGTGA  
ATTTTAATATAAGAAACGTATATTGTTAGTAAAAATAAAAAAGGAAAGACATCTTAGTA  
25 GCACTACTTCCCCAAGAATTGCTACTAAATGTCTTTTGTGATGCTCGCTCAATTGAAGA  
GCCTTAAATAGGATAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 431>:

**GNMFI24F gnm\_431**

30 CCCCTAAGTAATGGTCAATTCGGAATAATCTTGTTTCAGGAAATGCAGCACGAATTTCTT  
CATTTAATTCGTAGGCAGATTCTAATCAGAACCAAATGGCTTTTCGATAATTAGACGAT  
CAAAGCCTTCTCCGAAATAATATGTTGTGATTTCAAGTGATTAACAATGGTTCCAAAGA  
ATTGAGGGGCCATAGCTAAATAGTAAACATGATTGCCTTCTAAGTGGTATTGTTTCAATTA  
GGCGATCAGATAATTCTTTAAGGTATTATAATGTTCCGTATCATTACATTATGTGATT  
35 GGTAATAGAAATGACTAGAAAATTCAGTTGCCTCTTCGGCCGTGGGATTTAAGTCTTGAA  
TG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 432>:

**GNMFI25F gnm\_432**

40 CCGGTTCTTTCTAAAGGTGAAAATAAGGAAACGCCATCTTCCGTTTCGATGACTAGCCAAG  
GCATAATTGTTTTCCCATGACTTGATCTTCTTTCATGGTCCCGGCACCAAGTTAATAAA  
GCGACATTGGACAATCCTTTAAAAATGGGCAAAATTAATTTGACACTTGGTATCGCAATG  
GCACCAATCACAGGTAAGTTTTTGTTCATTTGAAATGGGCTTTTCATCACCGCTTCTGTGCTC  
AAGGACTCAACTGAATCAAAGTCAAACGTTGTTTCACGAGCCATATTTTCTTCACATCA

GCTGGTTTCAACTTGCTAACGGCGTACGAGCGGCTATTTTGTGAACCACTACGT  
ATCTGATTGTTAAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 433>:

5 **GNMFI26F gnm\_433**

CCGGCGTAAATAAGAAGAAACCTTTACTTTTTTTAAACAACCAAGTACCTATGCCAAATA  
CAGCTAATGAAATAATAATGCCAACATACGGATTTCATGCGGAACCTCTCCTTTGCTTT  
CTTCGTTGCTGCGGGTTCTTTTCTTTTCGAGCATCTTCATATGCAATAAAAAGGCGCC  
CGTCCAACAGTTGTTGCTAGTAACGCTAATGTTGCTACTAAAATAACAAAAATAATTTG  
10 AACGCCAAATTGTTGCATAATCCCTAAAGAATTAAGTAAAGGAAATCCCTGAAGGAACAAA  
TAAAAATGTAATAACCGTTGATAAGCTATTACCTAGCCCTTCCACTTGCTCCAATTTAAC  
AACTATTTTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 434>:

15 **GNMFI27F gnm\_434**

AGTTTATCTTTGGTCGATTTTCCTTGATATATATATAATCTTCAGGAAATGCTCCTGTCT  
GTTTAAATTCGGAATTCAGAAATTATCTTTTTTGCTAACTAGTTATAACTGGTTAG  
TAAAAAGAAGTATTGGACGAATAGTGCTGAAACAAGTGAATGATCCAAAGTATAAAGAAA  
AATGAAACCGATACCACAAGACAAGACTGTTGCTGAAAATGGTAAGTGATCATTCTGCTA  
20 AGTTTAGTGTCTTAATGTTTAGTTAACTAAGAATTGTTGGATTGTACTTTAGAAAGAAGG  
GACAATATGAAGCGAAGTAAATGGAAGAATTGATAGTAACGGGCATCTGCCATATA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 435>:

**GNMFI28F gnm\_435**

25 CCCTGTAAATCGTCTTCATATTTTTCCATTTCTGTAAGTGCAATAGCTTTAGGATAATC  
GAAGCTAGTTAAGTAAAGATGCGCATTCGGTACTTGCTTTAAGTCCTGAATCATCTCATC  
CACATCTTTAGTTGCTAAAGCTGAAAATAAAATATGAATCGTGTGTTGTGGAACTCTTT  
GCGCAAGTTTTCACTAAGCGTTTTACTGCATGATCATTGIGGGCACCATCTAAACAAT  
CAACGGTTCATCACTAAGACGTTCCATTCGAGCTGGCCATTGCGCTTTAGCCAACCCTTG  
30 AGTAATGTCTCGTTCTTTAAATGGCAAATGTTGTAGTTGGCAATACTTGTCAAATAATTG  
AA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 436>:

**gnm\_436**

35 CGGAACGAATGATGCCTGAAGAGCGTTTATTAGTGATGCGCCGTTTATGTGCGAAAGATA  
CTCCAGCCTTTATAGTATCCAGAGGACTAGAAATCCCCGAAGAATTAATTACAGCAGCAA  
AAGAAAATGGCGTTTCTGTATTACGTTACCGATTTCACTTCCCGTTTACTAGGGGAAC  
TATCCAGTTATTTAGATGGCCGTTTAGCTGTTTCGGACAAGTGTCCACGGAGTTTTAGTTG  
ATGTTTATGGACTTGGTGTGTTTGATTCAAGGAGATAGCGGTATTGGTAAAAGTGAAACAG  
40 CTTTAGAGCTTATTAAACGTGGACATCGGCTAATCGCAGACGATCGCrTCGATG



The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 437>:

**GNMFI31F gnm\_437**

5 TGACCAAGAAACGGTGGTCATTGAAATGGCGAAAGCAACGGAATTGAATTGGTTAAAGCA  
GCAGAACGCAATCCCTTGATCACTTCTACTTATGGTACAGGAGAGATGATTCAACATGCG  
CTCAATCATGGGGCAAAAAAATCATTATCGGCATTGGTGGTAGCGTGACAAATGATGGG  
GGTGCAGGTATGATTCAAGGCACTTGGTGC GCGTTTGTAGACAAGGAAGGGCAAGAATTG  
ACACGTGGCGGTGGTGCATTAGATAAACTGGCGCAGATCGATTTAACACAGTTGATCAA  
10 CGCATTTTTGCTACCGAAGTTCTAGTAGCAAGTGATGTGAATAACCCACTAACAGGGCCA  
ACAGGGGCGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 438>:

**GNMFI32F gnm\_438**

15 CCGCTTGTCAATCTATCACTTTGGTTGTCTTCTTTTAAAGAAGGCAAGATTTCTTCTTTA  
TAAAGGGTTTGATAGAATTCGTTTGATTGTTTATCCAAAGAAGCTTCATACTGATTTGTT  
GCTTTGCGCCAGACAAAATGAATTTATTGGCATCCGCTTCGATTTTTGTGCCATCAATA  
TATAGCGCTTCATTGTCAATTACCTGATTGGTGATTAATTGACAGCGGAATAAGACAAAG  
GCTTCTGCTAAAAGGTGAGCAGTTGTTTCCTGACTTTGGAAGCGATTGATGGTCCGGTAA  
20 CTGACTTGTTCGTGGTTTCTAGCCAACGCATACGATAGCTGTCATCTAATAGAAATCCA  
A

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 439>:

**GNMFI33TR gnm\_439**

25 AAAGCATTCTCAAAATCTCTCGCTATACCGCAGACGGTAAACAAGCCGTTGGCGAAATC  
AAACGACATTACATACGGCACACCCGCCGAAAAATCTCATTATCAAGGGCAATAATCTGATT  
GCCCTGCATTGCTTGCCAAGCAGTTTAAAGGCAAAGTGAACTGATTTATATTGACCCG  
CCATATAACACGGGTAATGACGGTTTTAAATACAACGACAAATTTAATCATTCCACTTGG  
CTGACTTTTATGAAAAACCGTCTAGAAATCGCCAAAGAGCTGCTTATGAAAGACGGTTCCG  
ATTTTGTGTCAATTGACGACACCGAACAGGCACATTTGAAAAATTTCACTGGATGAAC TT  
30 TTCGGAAATGAATCATTTACCTGCACCTTTATTTGGGAAAAAAGACAGGTGCGTCCGA  
TGCCAAACAGATAGCGACTATTACATAGTTTGTCTTATGTTACACAAAGAACTTTAAAC  
AGTTAAATTAGATTTAAACACGTTTTTCATATGATACAGAGAGATACAAATTAAGTGATAA  
GTTTGAACACGAGAGAGGC

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 440>:

**gnm\_440**

40 CCGGCAATCCATATGTGATGGGCGCAATTTAGGTGCTATTATCCCGATTGTTGGTATGA  
CACCGTTAAGTTCAATGGTTTTAACTGCCTTGATTGGTTGACTGGTGTACCAATGGCTG  
TCGGTGCGTTGACTTGTTACGGCAGTTCCATTGTCAATGCGGCGCTATTTAAAAAGTTAA  
AACTAGGCACAGCTTCAACCCGTTAGCTGTGGCAATTGAGCCATTAAACACAAGTCGATA  
TCATCAGTTCCAATCCAATTCCTATTTACGCAACGAATTTATTTTCAGGAATGGTTAGTG  
GCATTGTAGTGACCTTCTTTGGCTTAAAGTACCTGTACAGGAATGGCAACACCGTGGG  
CTTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 441>:

**GNMFI35F gnm\_441**

5 CCGACATGTGGTCCATCACCCGAGGATGTAACGTTGCTGGTTGGACATTCAATGCTTGCG  
TGTCTTCTTCAAAGCCTTTGATAAAACGCTCCGCCACTTCCGGCGCAGTAATTTTCAATT  
CTTTAGCTGCCTTGATAATTTTATCATCGACATCTGTAAAGTTGAGACATAATTCACTT  
CATACCCACGATATTCAAATAACGACGAATCGTATCAAAGGCGATCGCACTGCGCGCAT  
TACCGATATGGATATAGTTATACACGGTTGGTCCGACAGACATACATCCGAACCTTACGCG  
CCTCAATTGGCGTAAATACTTCTTTTCTCTGGTCAATGTATTATAAATTTAATCATGC  
10 CCTTTTCCACCTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 442>:

**GNMFI36F gnm\_442**

15 CTTTAAAGAATTCTTTTCTAATATTGATGAAATTACAGATTTAATAAAAGAAAAGATGG  
ATGAAACTGGTATTAACTATTGTGGAATACTGCAAATATGTTTTCAAATCCTCGTTATG  
TCAACGGCGCACATACTACAAATAATGCAAACGTATACGCTATCGCAGCTGCTCAGGTAA  
AAAAAGGTTTAGATGTTTCAAAAAAATTAGGTGGAGAAAATTATGTTTTTGGGGTGGAC  
GTGAAGGATATGAAACATTACTAAATACTGATATGAAGTTTGAACAAGATAATATTGCGC  
GTCTATTCAAATGGCTATATTTTACGG

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 443>:

**GNMFI37F gnm\_443**

25 CCCGTTTCACTCAATTACAATCTCTACCAACCAAGTAGCGGACCATCTAATTGATTTAGG  
GCTGGTTAGTTCCTTTGATATGTGTAATCAGCGGATTTTACCTTTTATTGAATCCGTTAG  
TAAAAATGCGGCCCTTAACAGTTTGCTAAATTATCGCGATCCTTTAGGTACGCACTTTCA  
ACGAGCAACCGCTGCCGAATGGCTTCAGACACAAGGCGTTCGGACCAATGCCGAAGAAGT  
TGCCATTGTATCTGCTGTCCAGAATGGACTGGCCGTGACGTTAGCCGCCGCTTTTTCTCC  
AGGTCAGCGGATTGGCGTAGATCGATACACGTATTCAAATTTTATTGAACTCGCACAGCT  
TTATCATTTAGAAAT

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 444>:

**GNMFI38F gnm\_444**

35 CCTGAATTAGTTATGATCATTTCTACGCCAGCTATTAACTTGTGACGACTGTTCTTATT  
GAATATGTCATTTTTTTTATTGTTTACGATCTTTTTTATCTAGTGGTAATTGGGGTGATT  
GAGTTTATACATTGTTTGTGTTACATTCTTTTTGAAACGAAGAGTGAAACAAATTAATAGT  
CTCAAAGTGATAGGTGATAGTTTATTAATGATTTTTTGCTACTTTTTATTTTTTTGATTTT  
CGTTATGGTTTAGAATTATTTCTAGCAAACCAATTGTGGAGTATCTCCTATATGATTCCT  
ATCACTTTTTTCTAATAGTGGTATGTTAATGCTTATTAGTATAGGCCTATTAAGAC

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 445>:

**GNMFI39F gnm\_445**

CCTTCAATTTTTACTGTTTAGCTTAAGCTGATTTGAATAGAGTATCAATTTCTTCCCACG  
GGGAAAAGTCGAAGAGACCAATTTCTCTCGACTTTCTTTGTATAAAGCAGAAACAACCTT  
CGATTCCCTTTAATCGTTACTGCAGCTGTATAGGTGGACTGAAAGTTGTTGCCATAAGGAA  
5 GCTTCCCCTTCAACTGTCGGTGATCCTGTTCAAGAATATTATTGAGGTATTTCGACTTCC  
AATGCTTCACTTTTTGGTATAGAATTCCTTCTTTCTTTTCAGCTCTTTGATCGCTTTTAATG  
AAGGAGCATATTTATCTGTTACAATGGAACGTGGTTGACCGTAGACTCTGATTAGACGCT  
TGAAAAAGAGCTTTA

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 446>:

**GNMFI40F gnm\_446**

CCAGAAATCATGACAATGTGAAAGTATCGTATGCCTCATTGGAACGCTATTTAGAAGATA  
TTCATCGCATGGTGGAAAATGGTTTACTTTCTGAAGAAAAAGAATTTTATGCGCCTGTGC  
GCTTACGTGGCGGGAAACAAATGTCTGATCTGCCTAAAACAGGTATTCGCTATATCGAGT  
15 TGCGTAATTTAGACTTAAATCCTTTTTCACGTTTAGGCATTGTGGAAGATACTGTGGATT  
TCTTACATTATTTTCATGTTGTATTTATGTGGACAGATGAAAAAGAAGAAGCGGATGAAT  
GGGTGAAAACCTGGGGATATTTTTAATGAACAAGTGGCTCTTGGTCATCCTCATGAAACGA  
nTTAA

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 447>:

**GNMFI41F gnm\_447**

CCTCCTTGGCATGGCAACTACTGGAAGTATGGCAAATACACAGTGACTTTAGAGCCAGG  
GAAGGCCTCAGCTAACGAAACAATAACTGTCTAGCGAAAAATGCAACAGGAAAAGAAA  
TCAGCCAGCTACAGCAACTACACCAGTCGACTTAGCCACACCAACCATTGATTCTATTAC  
25 CGGAAATCTAGTAAAGGTTACGAAATCACTGGAACGGCGGAGCTAAAAACCACTATTGA  
TGTCGGTGACGCAGACGGAACCATCATTGCTGCTACAACTGCTAACGAAACCGGCCAATA  
TACGGTGACTCTACCAGCTGGCGTAGTGACACCAGGAGAAACGATTACGATTATTAGCAA  
AGATGGCGCAGGTAA nTGAA

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 448>:

**GNMFI43F gnm\_448**

CTGCTTAAAAATACTGTTTTAGTGAGTTTAGGTACGAATGGTCCTTTTACAGAGGCACAA  
TTTGATGAATTTATGAAAGCGTTAGGTAATCGAAAAGTTTATTGGATTAATGTTTCGCGTC  
CCAACTAGAAGATGGCAAATCAAGTGAATAGTTTACTTAGTCAAATGGACAAAAAATAC  
35 GATAACTTAACGGTCATTGACTGGTTTAATTATAGTAACGCCCATGATGATTGGTTTTAT  
GATGACCGAGTTCATCCAAATGTGGCAGGTGGCGAGCAATACACACACTTTATCGCGGAG  
AAAATTTTACAGTAGCAAGAACTTCCAGCTCAGATGAAAGGGGCTGGAAGTTTTTGT  
ATAGGAAAAGCAAT

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 449>:

**GNMFI44F gnm\_449**

CCGTGGAAAACTTTTGTTAAAGCTAGAGCTAATAGATAAACGAATCGAACGCACATTAT

5 TTCGACAAAAACATTTTGGAGCGGTTTTGGGCTACTCTTAAGCCTTTAGAGCAACAATTGC  
 TCATTAGGCGATTCAAGTATAAAGAAGAGGTTAATTGCCCTCACAGGCTTATAGAGAGCG  
 TATTAGATGAGATTGAAGAGATAGAAACAGCTATTTGTTTGATGGAAAATATAGAATTAG  
 AAGAAAACGAGCTTTCCGACGATGTAGAAGAAAACCTAGAGAGGATGTGTGACTTCTTTG  
 CTTTATGAACGTATCCGTCCAGAGTTTCATCTTGACGCTGGATATATTACGAAAAAGCA  
 CG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 450>:

**GNMFI45F gnm\_450**

10 CCTGATCCTAAAAACGGCTTTGTTTATAGCTTCCTCATCGTTGAAACAATTCAAAATGGT  
 GCAGAAATCTCAGCGGGGAAATTAGCACCCAAATGAAGTGTACAGCTGTGGATGAT  
 TATACATTAAAGGTGACGCTCAAAGAGCCAAAACCGTACTTTACGTCCTTGTTAGCTTTT  
 CCGACATTTTCCCGCAAAATCAAAAAGTAGTCGAACAATTTGGTGCGGACTATGGAAC  
 GCTAGTGATAAAGTCGTCTATAATGGTCCGTTGTTGGTAAAAGATTGGCAGCAAACAAAG  
 15 ATGGACTGGCAACTAGCAAAAAATAATCGCTATTGGGATCACCAGAACGTGCGCTCAGAC  
 ATTATCAATTATACA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 451>:

**GNMFI46F gnm\_451**

20 CCCCCATTTTAGAACGGATCATGAATCAATATCAAGAAATAGCTGCGGCTTTACGCCAAG  
 CGTTGCCGCAAATTTTCCGCAAAAGAATCTATCGGAAGAGGAAATTGCCTACATGGTG  
 TTCATTTTGCCAATTCTTTAGAACGGAGTCCCAAAATTATGGAAGTTGATATTGCTGGTT  
 TTTCTCCTAGCGGTTTGGCTTCGACAAGTATGCTGGAAATGCGATTACGGCGCTACTTTC  
 CTTTTATCAACCAGATTCATTTTTTTTCGGATTGCGGATTTAGGTAAGGTGAATGTTGAGG  
 25 AAAACTATGACTTAGTGATTTCCACTTCGTTATTACCAGGATACAATGGTAAATATAAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 452>:

**GNMFI47F gnm\_452**

30 CCGGTTGCGCTACTTGCTGATGTTGCTTCCTTAGCGCTACTTGCTACTGTGGGACTACTT  
 TCAATCGTGATTGTTTCCGCAACTGCGGTGCGGCCAGAAAAGGCGTTAATCACTAAAGAA  
 CTACACAAGCCAATGGTTGCTAATCGTTGCCACTTAGTTTGCTTCATGTCGTCCCTTCTT  
 TCTCTGGACCATTCCGACAAGACCAATCAAGACAAGACCAAGAATGCTCAGGTTTGCCTG  
 ACTCTTGCTTCCTGTACGAGGGAGCTGCGAGCCAGCTGTGGTGGTCTGTGTGCAACCACC  
 ACTTCGTTGATCTCCTTGCAGAGGACCAGCTGGTTTCCTTGGGATCCGCAGCTGGCTCATC  
 35 TGTTTTCGGTGGGGGGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 453>:

**GNMFI48F gnm\_453**

40 CCTAAGATTTGGCTTAIGAGCTTGGGACAGCGCTTAAAAACGTTTGTCTCTTTGCTGATA  
 AGTCCATTTTTTTATAACGGAGGTGGCTAGAGTGAAAGCCTGTGGCATTATCGTGGAATA  
 TAATCCCTTTTCATAATGGACATCGCTATCATGCCCAACAAGCTCGCCAACAAAGCGGACT  
 GATAGTAGTGATTGCTATAATGAGTGGAATTTTTTACAAAGAGGAGAACCAGCCTTACT  
 AGATAAGTGGGCCAGAGCAGAAGAAGCTTGC AAAATGGTGTGGATTTAGTCATTGAATT

GCCGACAGCTTGGTCGGTACAGTCTGCGGATTACTTTGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 454>:

**GNMFI49F gnm\_454**

5 CCGGAGCGAGTACCCAAAAATCGCGTGGGAACCTTTGCTGAATATATTGCAGTGGATCAA  
GCGGCTGTAGCTATGAAGCCGAAAAATTTAACGTTTGAAGAAGCTGCGGCCATTCGGTTA  
GTCGGTTTGACAAGTTATCAAGCGCTACATGATATTATGAATGTACAGCCAGGCCAGAAA  
GTCCTGATTCAAGCAGGTTTCAGGAGGGATTGGAACCATTCGCGATTCAATTAGCAAACTA  
GCAGGCGCTTACGTTGCCACCACAACGAGTAGTAAAAATAAAGAATGGGTTCAAGCGTTG  
10 GGAGCAGATGAAGTGATTGACTATCGGACACAAAATTTTGAAGAAGTTTATCCGACTAT  
GATTATGTGTTTGATACAATGGGGGGGACAATCTTAGAAAAAGCTTTCTCAGTGGTTAAA  
CCTCAGGGAAAAGTTGTTACATTGTCAGGCATTCCCAACGAACGTTTGTCTAAAGAGTAT  
GGCTTGCCGCTTTGGAAACAATGGGCCTTTAAAATAGCTACCCGCAAGATTG

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 455>:

**GNMFI51F gnm\_455**

CGGAATTGTATTTACTGCAGAGACAGTTTAAGGAGGACACGCAATGAGCAAAGGTCCGTT  
AGTCACTCGGACAGAGCTTCGCAAACGCAGAGAAGCAGAAGAAAAAGAAGCGGAACGTCG  
TCAGCAAGAAGAGCAGAAGCTGGCGGAAAAAGCGTATAAGCGAAAAGAAAAAGAAATTC  
20 GACGTTTTATCGTAAAGAAAAAGAAAAACAAAAACCGATCAACAAGTCACGAGTAGGAGA  
ATACTCGAAGCGTCGAGAACGGAGTACTTGGTTAAACAAGGCAATTATTATTGTAGCGAT  
TTTATTAGCCGTTGTGGCATATATCGTTTTGAATTTATAGAAAAGAGGAATCACTATGAA  
AATTGGAATTATTGGAGCAATGATCAAGAGGTCAAATTTCTAAAAGAAAAATTGACAGA  
CACGATGTCATGGGAACGAGCAGGCGCTTTATTTGTTTCTAGTTCGTTAGGAAGACATGA  
25 GGTGATTGTAGTTCGTTTCAGGAATTGGTAAAGTGGCCTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 456>:

**GNMFI55F gnm\_456**

CCGGGGTTGAAGGTGTACATGGAGAAAAACAAGTTGAGAAAAGTGGGCTTAAGTGCCTG  
30 GAATGGCTAAAACAACATCCAGAAATTAACAACATAAAGAATCAAGTCTCTATGAACAG  
TTGTTTGCTAGTCAGCAATGGCAACAAGCACAAACGATCGGAATGATTCGGTCGTTACCG  
CTAGAATTATCAACACAGCCAATTTTCGAACGGGCCATGCAAGAGAGCAAGCAAGTGGCG  
GTGCCGCGAACATTTAAAGGAGGCAAAATGCACTTTATCAAGTCTTTCAGAGACGGTT  
TATGATACCAAGTGCATTTGGCGTGGAAGAACCTCCGTTAACAGCGGCAGAAATAACAGCT  
35 ACAGCGATTGATTTATTGATTGTGCCAGGGATTGTTTCAATCGTGTGGCTATCGAATA  
GGCTTCGGCGGTGGTTTTATGATCGAATTTGGTACATTTTTCGGGGCATTTCATGTAGTT  
TAGTTTTACGTGACACTCCCATG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 457>:

40 **GNMFI56F gnm\_457**

CCGGAAGAGTCGCTGGCCTTGGCACCCACGAAGAATTACTTACTTCTTCTAAAGAGTATC  
AAGAAATCGTTGCGTCACAGGAGGAGGATACCATGCAAACTAAAAAATTCATTTTGGTG  
CCTTCTCACGTTTTTAAGCCGTATTTACTACGCTATCCAAAAGAAATTATTGGCGCCTTAA

TCCTAGGAATTCTCAGTGGTTTTTCGACTGTCCTCATGACTTATTATATAGGTAAATCCG  
TTGATACAATGGTGGGTAAAGGACAAGTCAATGCTGCGCAACTCATCAAAATTTTAGGTT  
TATTAGCAGGGATTTTACTCGTAACCGTTCTAAGTCAATGGCTGATTCAACGTCTCGGTA  
ATCGCGTGTCTTATTTATCGACCACACAGCTGAGAAAAGATGCCTTTGCCCATTTAAATC  
5 AATTACCGTTAAGTTATTATGACCAAACGTCACACGGAAATATCGTCAGTCGCTTTACCA  
ACGATATTGACAATATTTCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 458>:

**GNMFI57F gnm\_458**

10 CGCGGTCGTTTATAAACCATTTAGAACCCTTAGACACACCAACGATTCATTTTGAAAAATT  
ATATGGACCTGATCAGAACGGGGCATATATTTATCGAATAAACGACTAGTGATTCATTCA  
TGGAATGAGGTTTGAATATGGGAAAAGTATTGAATAGAATCGGTCGACTTATTTTATTAG  
TTACAATGATCGGCTCGTATACGATGTGGGTCGTAGGAATTGATGCGCCAGTCACAAAAT  
ATATGTATGCCAATAGTTCAATTTTATTATTAATAGCAGTAATACTTGTACTGCTATTAA  
15 ATTGTACGATATTAAATTTATTGACTGGCTGACCGTAGCGTTGGCGCTAGCAACCTGGC  
TCTTGTTTTACCTTTACGGAATCAATCCGTCATAGCACGATGCAAACAGATACAATGATTC  
CTTTAATTATTTTATTGGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 459>:

**GNMFI58F gnm\_459**

20 CCTGCTGTGCCGTTGCGCCAGAAGGAAGCATCAGCTAGAAGTGCGTCAATTTTTTCTTGG  
AAAACAGACCATTTTCTCAGGAAATTTTTTTTCAAAGCGTGTTTTTGCCGCTTTTGCA  
AAATTTTTTCAAACAAGCGAATCTTTTTCTACGTTTTGATGAGCGACATGGGTGTTAAAC  
AAGAAAGTAACAAACGGTCCATGAACCTTCTCAGAAAATAATGTTGATAAGCTATCTTAT  
25 TTTTGATTTGCCATAATAAAATCCCCCTTCTAAAAGTAAGTGTAGCACAGGAAATCGAAT  
GTTTAAACAATATGTTCAATAAAAGAAACGCTTCAACTAATCTCAATAAAGGACTGTT  
AATGGTGTTCTAATAAAAGTTTATAAAAAATATAGCTGAACTCATGATAAAAAAGGCA  
CAACCACCTATACTTACGTTATGCCAATTATCCCGAATTGGTATGTTCTACTTACTCCT  
ACCAAGAGTACATAA

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 460>:

**gnm\_460**

ATCTATAATTCCTGAATCTCAAAGATCAATTATTCCAGTTAATCTATTATTGCCATCTAA  
CAATAGATGATTACAACATAAATCATTATGGCATAATCACTTTTTACCCTCAAAAACGT  
35 TGTGTCATTTAGTCTTTCCATAAACTATCTATATAATCTTTTTCTATATCAGTTAAATC  
ATTATAAATAGTTTCACGCAACAATATATACTCTTCTAATACATTTTGTTTATTATCAAT  
AGTACATTCACATAATCTGTATAATCTAAACCGTGCATTTGTCTTAAAAAACTGGCAAT  
ATCTCGTTTTTAACAAATTTTGTTCTTCTTGACATAGTAGAATAAAATTTCTGGTGTTAA  
AAAAGTTCCTTTAATTTCTTTATAACCTAGTATAGATAATTCATCACTAATATACGAATA  
40 TTCAATATTAGGAATTTTTACATTAGTTCTAAATTTGTATTTAAAAAATTATATATTGC  
TTTTTCTTTGCATAACCTTTTTTCTTATTAGTACTAAATTTGTTTTAAAAATGTATTC  
ATTATTAACTAAATATGCCACACTATCATAACCACTACCGATTATTTCAATACTATCTAC  
TTTGAAATTATCAAAGTAATGCTCAATTAAATATTTTCATTGCCTTAACATTTGTGGCATT  
ATCATCATATCTATATTCATTAAATAACAATCTTCTTTTTTGCCCTCGTGAATTCATG  
45 TTCTGGCAAATCTTCAATAATTCTAAAACAGATTTTGGTATGCCCTTATTGCTCTATG  
GATTATTTTTATGAGGGACTAAAATAACTGCATTAGCATTCTTTTCGATTTTCAAAAATT

CAAAAATCAATTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 461>:

**GNMFI60F gnm\_461**

5 CCTGCAAAGGCTCTTACTTCTTTGATGTCTTTAACTCCAACTTATGCCCTATCACATTT  
ATTAAGTTTAGCACCCTTTGGTCAGTTATCCCATCTAAATGATCTAAAAAATTAGAATAA  
TTTTCTTTTCTTAAAGCTTCTTGCATGTTTGTCTAATACGGATTTTAAATCGAGT  
TTAGTTGCACTAACTTTTGGATGATTTAATTTAATACCCCACTGCTTACTTGCGAATTCA  
TCCAATAAATCACCAAACATCTCTTCATACAATTTATCTATGTCATCGCTAATTTTCAGGA  
10 ATAATTGGTATTTTCAGTACAACGGCAACGTCCATGATACGGTGGATGCCAATCATCTTTA  
ATCTCTTTTCCATGACGTCCACCACAAATAGAACAACACGCTCATCTTCTGCCGACCAG  
CTTTGTGTTTGCCTAACACCTATATCCTTTAGCGATTTTCTTACACCTTCTACCGCAAAA  
TGTGAATATTCCGTTCTAA

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 462>:

**GNMFI61F gnm\_462**

CCGATTAATAATTTTATTCAAAAAGCGCGTCGAGCAACAAAAACCATCGGACTTGGTGGC  
AATGGTCAGTTTTTTTCGGTTATCAATGATTACCGAACACTTAGGCTATCAGCCTTGGGGA  
AATGCTTTTGTGGATGACTATGAGTTAACCATTAAATTAATGCTGAAAGAGTTATCGATT  
20 GCTTATATTGACGAGGCCCTTATGGCTCAAGAAGCACTGAGAGATGTGAAACGTTTTTATT  
CGTCAACGnGTCGTTGGGTTCAAGGAAATTTAGATTGTCTAGCGTATTTACCCAGGGTGA  
TTAAATCAAAGTCATTAACGCTAAGGCAGAAGTGTGGAATCTATTATTTTTTAGCGCAAC  
CCTTTATTAATCTCGTAGCGGGGATGCTCGTTTTTGTCTTAACTGGGCTTCAACTGCAAC  
ACTTGTATAGGTTAGGCTTTTCGTTATCGCTTGTCAATTAGTTTTTGTGTTTGGCCGTCAGTA  
25 TTTTCGTTAGTTTTTCGGCATTTTTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 463>:

**GNMFI62F gnm\_463**

CCCGGTTTGAAGCTGCGCAATGCTTAACGTTAGAAGAAGTAGCCAAACAAATGGCTGCT  
30 GAAACAATCGATCAATGCCTGTTGCCATTGAGACAGCAGTAGAACAATTCCCACGAATT  
GATTTATCAGATGAATTGTATCAAAAAGTAAAAAATGGCATGCGTTTGACAAAAAAGAA  
TTAGGAATAAAGGCAATGCCAGAATCCTTAGTCGCCTTATTTTACCAAAATCAAGTGGTT  
AGTTTATACATGCCACACCAACGCATGATAAATTATTGAAACCAAGTAAAGTTCTACGG  
AACAATTAATAAAAAAGAAGGAAGTTTTTGCACATGCAAGTTATTCAACTACATCATCC  
35 CTATGAACCCAATCAAATTCCTAATGAAGAAGTCGTGATGGTCCTAGGCTTTTTTGACGG  
TGTTTCAAAAGGCCACCAAAAAGTAATTGAAACAGGTAAAAAGATTGCGGAGGAAAAAGG  
CTTGAAGTTAGCTGTGATGACCTTCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 464>:

40 **GNMFI64F gnm\_464**

CCGAGGGGATTGGCCTGATGGAACGGAAAAACAGGGGCAGGGACATCCCGCCCGGATAT  
ACGTTAAAAATTTTATCTTGGAACCGGAACCCACCGCGCCGTTTCAGACTGCGGAAAATC  
AGCAGTCAAGACCGCTTCCAGTGCCGCCGTCAAGACTGCTGAAAAACCGCAGTCTGCAC

CACGGGAAACCAGCGGTCAACAGTGCGGCATTTCGCCCCCTAATAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 465>:

**GNMFI65F gnm\_465**

5 CCGGATCTAATCCTAGTTGTCCAGAAATGTACAACGTATTTCCCGCTAAGACAGAATGTG  
AATAAGGTCTACAGTAGCTGGTGCCTGTGCAGAATTAATCATTTTGTTCATCGTTT  
TCCTCCATTCTATGATTCTTTATTTTCAATTAAAGTCCCTGTTTTTCCAGATAATCCTTC  
TTTGGCTTTTTCTAATAACGTAATCAATGTTTTTCGACCTGGCTTAGATTACAGCAAACCT  
AATCGCTGCTTCAACTTTTGGTAACATTGAACCTGGAGCAAACCTGACCTTCTTGCGCATA  
10 TTGTTTCATTTTTCTGTTGAAACATTCCCTAAGGCTTCTTGATTTTCTTACCAAATTT  
AATACAACTTTTTCAACTGCTGTTAAATCACGAGCAGATCAGCATCCACTTGTTTCAGC  
CAGTCGTTCACTACAAAAATCTTGTGATGACTGCATTGACACCTTTTAGTCGGTTCCC  
TTCTTGAATGACTGGGTATGCAC

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 466>:

**GNMFI66F gnm\_466**

CCGAAGAACTTTTTTGAACCCACATTGACAAATTGCTCAATTGCCTGCGTGGCACCGCC  
ACGGTTATCCAAGAGAACTTGCCGAATATTCCTATGCTCAGTGGTTCGATCAAGGACAAC  
GATCGAATGGCCTCGTTCAGCAAACCTTTCAATTTCTTTTGTGGAAATGTCCAATCTAA  
20 AATAATTGCCCCATCCACCATTTTTTCAGGAATGATAAGATGTGACTTTTACCGCTGCA  
GACAATCATCTCATAATCAAACAGTGCTAAGCCTTTCTTAATCCCTCCAACAATTCACC  
ATAAAACTACCGCCATAATCAGCCAAATAGACACCAATAATATTGGTTTGACGACGTTT  
TAATGTGCGAGCGGGCATGTTAGGAACATAGTTTAGCTCTTCAGCAATTGCTTGGATGCG  
CGTTCGTGTTTCTTCAGTTACCTTTGAACTACCATTCAATGCGTAAGAAACGGTCGAGAT  
25 TGATACGCCCTGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 467>:

**GNMFI67F gnm\_467**

CCCTTGATTTTTAAGAATAGATACAGTAGCATAAGAACAACCTAGTTCTTTCACTGGCAAT  
30 CGTCAATGTCATATAGAAAAGAATGCCCTATCTGTATTATCTGAAAAATCAAACAATCAT  
AACCAATTAGAAAGGTGGTTATTATGTATAACTTATTAACCAAACAGGAAATTCAGTTAC  
TTTCCCTAATTGAATACTTGTATGACAGTAAAGAAAAAGTCCCATGCAAGTACTCCGAC  
GAAAATATGAATTTTCCATTACAATATCAACAATTTATTGAATCAATTAACCTTTGTTAA  
TTTCTCGAGTCAATACACATGAAAATGTACATATTCGTATTATTAATAATCAACAGTCCA  
35 TAGAATTAGTCGCGGATGAAAATATCCCGATTGAGTTAATGAAAGAAGCTGTTGTCCGCG  
GGTCACTAACCTATATGTTAGCCAGGATTTACTTTTAATACGCTACACTTCAGCCAAAG  
ATTTTTGTGAAGAGCCTTTATTAACCTTTCTATTTTTTAAACAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 468>:

40 **GNMFI69F gnm\_468**

CCAACTAGAAGAAGAAAATCAACTATATCAGCAATCCATTAAAAAGCTAACGGAGCAATT  
ATTAATGCAAACCAATGAAGTGAAGCATTACAAAAACAAGTAGTCGAAAAAGATGTTCA  
ACTTAAACATGTTAAAGAAACATTAAGTGATAAAGAAACAACCTATCACTTCTTTACAGAA



ACAATTGTCTGAAGAAAAGATGCAACAGAGACAGACCAGTGAAGAGAATTTAGACACAGC  
 CGTTACGCTTTCTCAAAAAGAAATTGGCGAAGTGTTATTAGAAGCCAAACGTCAAGCAAA  
 AGATACAATTAGTCAAGCCAACCAACAAGTTGCAACAGTTCATGAAGAAATGGAACAACG  
 TTTAGCAACTTTTACACGCATGAAGCAAGTGGCAAGATAGTACCAAGCTTATTGTGAACA  
 5 AATGCAGACAATCAAGAATGAATCAACAGGAACGTACCAACAGATAGAGCAGTTATTAGC  
 AG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 469>:

**GNMFI71F gnm\_469**

10 CCGGTGTTATTCATGTTTGATTATTCGAAAGAACCAGTAAATGATTATTTTCTAATCGAC  
 ATGAAGTCTTTTTATGCGAGTGTGCAATGTATAGAAAGAAATTTAGATCCATTAAACA  
 GAACTTGTTGTTATGAGTCGAGGTGACAATACTGGTTCAGGATTGATATTAGCTTCTTCT  
 CCTGAAGCAAAAAAGCGGTATGGTATTACAAATGTGAGTAGACCACGTGATTTACCACAA  
 CCATTTCCATAAACACTACATGTTGTTCCACCACGTATGAACTATATATCAAGCGAAAT  
 15 ATGCAGGIAAATAATATTTTCAGAAGATATGTGGCTGATGAAGATCTACTGATTTACTCG  
 ATCGATGAATCAATCTTAAAGTGACCCGATCACTGAATCTTTTACGACTGAAGGAACA  
 CGAAGCCAACGTAGAAAAGAGCTCGCTCAAATGATCCAAGAACGTATTAAAGAAGAGCTA  
 GGATTGATTGCTGCAGTAGGTGTGCGAGATAATCCCTTGTTAG

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 470>:

**GNMFI72F gnm\_470**

CCGGCTCCAACGTACCAACTGTTTTTGAAATGATTGATGATGCCAAAGTAATTCCTGGTT  
 TAACCTTAACAGAACTGTCTCTTTAACTATGCGATGGAAGAAGAAATGGCTTTAACAC  
 CCGTCGACTTTTATTGCGACGGACCAACCACTTATTATTATGCGTGATCGTTTGGACCA  
 25 AGTGAAAGCGGGAGTCATTGAAGAAATGGCACAGCATTATCAGTGGACAGCGGAAGAAAG  
 AGCACGACACATTGAAACATTAGAAAAAGTAATTGAAGAATCAGATTTAAAAAATTTGAA  
 AGTAGGGTGAAGAAAAAATGGGAACCTTCGATGATGACACAATTATTCGGTGAATTTTTCG  
 GAACGATGATTTTAGTTTTACTAGGGGATGGCGTCTGTACCGCAGTTAACTTGAAGAAAA  
 GCAAAGCCTTTGCTTCTGGTTGGGTCGTTATTGCTTTAGGTTGGGGCGC

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 471>:

**GNMFI73F gnm\_471**

CCCGTCTTAAACGGCTCTACACTAGAGAGGTATGTTACAGCATATCTCTCTTTTCAATGC  
 TATTATAGCACAACGACCATCAAAAGACCATCAATAAAAATGCCCGAGCCTCTTATTTTT  
 35 CTAAGGCTCGGGCATTTTTATTTTAGGGGCCAGTCACTAAATTCACGTGACGGCGGCTT  
 GGTATTGTTGGCCAGCCATACCTTGGTTGGCTGGCACTTCTAGTTTGATGTTAGCAAACG  
 TGAAGTCCAACGTATAGACGTCACTGCCTGTGAAGTGTGTTGCGACCAACGCTGTTG  
 CGGTATTGTCGGCGGTTAAAGTCACGGTGCTGGTCTTGCCAAGTGGTGTCTGTTTCTG  
 TTGGTTGGTTGTAATCGGTAAAGCTGGCAGCAGCGGCCGTTCCTAGCAACAAGCGGGTGC  
 40 TTGTTGGCAAGCTGTCTGTGGCTGATTTTGGTTGCAATAGCTGGGCCGTTAACTCCAAT  
 TGGCTTGGCTAGTATTACAGGCGTAAATTAGGGTTGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 472>:

**GNMFI75F gnm\_472**

CCAGACACAGAAATTGAACGCAATATGATTGAAACGAGTCAACTTGTGAGCCGTCTAAAA  
GAGAAGTAGGGGTGTGCAAGCAAATGAACTTAGAAGGATTAACGACAGAAGCCAGAAATG  
AAGCGACTAAAAAGATTGACCAAGTGTCAACATTAGAAATGGTAACTTTAATAAATCAAG  
5 AAGACCAAAAGGTAGCACAAGCAATTGAAAAGGTGCTTCCGCAGATTGCTGCAGCAATTG  
ATGCAGCGGCAGAACGATTTAAAAAAGGGGGCCGTTTAACTCTATTGTGGTGCAGGAACGT  
CTGGACGTTTAGGTGCTTTGGATGCGATTGAATTAACACCCACATATAGTGTGTCGCCAG  
AACGCGCATTTAGTATTTTAGCTGGTGGTGAAAAAGCAATGTATCAAGCAATTGAAGGCG  
CTGAAGACTCGAAAGAATTAGCTATCGAAGATTTAACGCAACATCAATTGACTGCCCCGAG  
10 ATGTCGTAATTGCGATTGCTGCTAGTGGTCGGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 473>:

**GNMFI77F gnm\_473**

CGGAAATAATAGGGATTCTCTCTGCTTTATTAATGTTTATTTTTGCTCCTACATTAAGTAA  
15 AAATAAGTCCAATAGTTGATCATACTGCGGGTATCACAGCAATCCGTAGCCTTTATTTTT  
TTTTATTAATTATTTCCTATACTTAGCGCACTAAGAGGGTATTTTCAAGGTCTAAATTATA  
GTTTTTCTTTTGGTGTTCCTCACTACTAGAACAATTAGTTCGAGTAGTTTGTATTTTAG  
TAGGAACCTATCTAATTATAGTTCAATTTAATGGTAG

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 474>:

**GNMFI78F gnm\_474**

CCCGGTCAAGTTTACTTAGCAAAAGTTGTCCGCATTGAAAAATTTGGTGCCTTTGTTAAC  
CTAATTAAAGGCAAAGATGGCTTGATCCATATTTCTCAATTAGCAAACGAACGTGTGAAC  
AACGTTGAAGATGTCGTGAAATTAGGCGACGAAGTCCTTGTCAAAGTAACTGAAATTGAC  
25 AAACAAGGCCGTGTCAACGTGTCAAGAAAAGCGTTATTAACGAAGAAAACAAAGAAAA  
TAATTTCTTTTAAACCAACGAAAACCAAGGAAGCTTCCTTTCTTTTCGTTGGTTTTTC  
GTTGAAAACAAGCCCTAAAAAAGAAATGATAAAAAAAGCTAAAGACGATCGCCAACTCTT  
TTGTTTATAGTCAATTAGTGGTAAAATTAATACTATCAGTCTGAAGAATATCTGGGGTGT  
CTTTGTGAAAAAATTTAATCCAAATAAAAAATATAATCATTACCTTAATTTTAGTCATTAT  
30 TTTAGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 475>:

**GNMFI79F gnm\_475**

CCTTGTTAAAGTTAAGAATACAGCGTTGACATCATCCATTACCCCATAAAGTAAAGCGAA  
35 TAATGAGATAACCACAGATTGTGTTAACACAACGTTACGAGAAACGCCATATTTATTTTC  
GCGATGGAAACCAATTTTGGTGGCAATAAGCCATCACGAGCAACTGAATAATTGTTTT  
TGATGGTCCAGTAACCAAGCAGATAATTGTAATAACACACCTAAGAAGACCATGAACT  
AAAGATATTACCAATAATTGTTGGTAAACCTAAAACGTCACAATAAAGCAAAATTGGTTG  
TGTAATGTTAGACAATTCCATTTTGCCATTTGGAACAATATTAGCTACATACATTGCATT  
40 AATCACGTTTAATAAAACTCACCAATTAATGACATGAAAACGCCTTTTGTAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 476>:

**GNMFI80F gnm\_476**

CCTGAAAAATTGTGGTGCGATGACTTTTTTAAACAATCGTACTGCCTAATTTTGCTTGT  
GGCGCTGGTTATTTGCCAGTGTGTGCTCGATAGGTAAGTGAACGTTGCCATT  
CCATTTGATGAGGTGTGAAAACAACCTTTTTCAGGATAGGTAAGGGAAAAATTGCCTTGGC  
5 TAAACAGGGTAATTGCTGAGCCATCGATAATTAACCATTGTTGTTTTTGATGTTGGGCGA  
GTACCATCTTTAATATTTGTTGTGAGTAGCATCTAAGCCTAAACCTGGACCAATTAAAA  
TAACATCCGCTTGCTCTACGACGTTTCGTGAGAAGGACTGTTTCTTCAAAGCCCACGACCA  
TCGCTTCTGGGCATCTTGCATGTAAAGGCCGTTATTTTAAACATCAGTAATCACAGTGG  
10 TGAGACCAGCGCCACTATTGATACAGCTTCGGTACTCATGATGATGGCTCCGCATATTG  
TCGGTTTCTCCGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 477>:

**GNMFI81F gnm\_477**

CCAAAATTTTGGTAACTAAAAGATGGAAGTATTGGGGTAAAAGGTGGTTGGCGAATTTA  
15 TTCAAGCGGGCCGGGAATTTATTTAAATCAATTAATTACAGCTGTTTATAGGGATTTCGGCA  
AAAGGCCCAAAGTGTAGTTTTTGATCCCATGTTACCAGAAAAATTGTCTGGTTAACACT  
AACTTACCAATTGTTTGATAAACCTGTACATATAAATTTTATCCAAATCAGTCAGCGAA  
AATAGTTATCGATGGTCAAGAGGTTCCGTTTAAAGTTGAAGAAAACCCTTATCGAGAAGG  
20 GGAATGGTAGTTCAAAAAGACGAGGTGCTTTCATTATTAATTGAAGCAAGTGTTATTGA  
TATTTACCATTAGATAGGAGAGTAGTCCATGGTAGGAATT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 478>:

**GNMFI82F gnm\_478**

CCCGTTCGTTTTTATTCGATTGCTCATATTAGCAATTTCCGGCTCTTGCCCGCAAGAACT  
25 TGTCTTCCATTTCCGAAAGCTCTGCTTTAAGATTTTCAATCTCTGTTGCTTCAACTTCTA  
CTTCAGAAACGCCAGCAGCATCAACAGCTTCCATTCTTCTTGTAAATCTTCTTGCTTCT  
CTTCTTTTTTACTCACTTCAGCAACTTCTTCTCTTTATGCATCTACTTCTTATCCTAA  
CAAGGTTTGCTTAATTACCTAAAAACGGTAATAGTCACCTAGTTGTGAAGCTAGCTCAT  
30 GTCGAAACGTGCTACCAAACCGAATATTTTGAATACGGCATACTGGTTGGTCCTAGCA  
GGGCAATTGTTCTTTGCCATGTCCTGATACTTCATACGTAGCAGTGATCATGCTCATAT  
CTTCTAAGAGATTGTTGCCAATTTCTGAGCCGATACGAAAAACAATTGGATTTTCTGTTG  
TTGCAGAACCATT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 479>:

**GNMFI83F gnm\_479**

CCTGCCCCATTCGTTTACCGACCCACCGGCAATAATTAAAGCTGTAATCATTTGATACA  
AAATCCTTTCTCTAACTAGTCAACCACTAGTTTTATTTCAATTTTGTTTAACTTATATAT  
TCATCAACACAGCCAAAACCTGCATTCAATCTTTTACATTTTCTCATACTATCAGTAAGT  
TTCAATAATTTATCGTAGACCTTAATCGAACTGTAAATGAGAGTGTAATAATTTTGTGT  
40 AAATGAAAAATCCATACAAAAAGGAAGTCGCTTCTGTAGATAAAGTTAACGACAACC  
AATTCACAGAAAAGAGGACTTCCCTATGAATGATTTTACTACAGAAAATTGTGCAAACCTCT  
AGTCACTAAAGGCGATTTAAATGAATTATTCCGTTTCGCACTTAGAAAAAGCGATAAACAC  
ACTCTACGGAAGTGAATTAACGGCTTTTTTAGATTACGAAAAATATGATCGCACTGGTTC  
TAATTCAGGTAATTCGAGAAACGGTTCTTACTATCGATCAATCAAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 480>:

**GNMFI87F gnm\_480**

5 CCGGGAAAAAATTCTATTCTACAAAATAAAAACGTTAGAAAAGCCATTAGTTATGCAAT  
AGACAGAAGTAATTATGCTAAAAACATTTTAGATAATGGTTCTATTTCTGCTGTTGGTGT  
TGTTGCTAAAGACGTTGCTTTTGATCCTAGTACAAAAAAGATTTTGCTAACAAAATGTT  
GGTGCATTTTGATACAGAAAAAGCGCAATCCTATTGGAATAAAGCGAAAAAAGAATTAAA  
TATTAAAGAACAAGTAACTTTAAACATTTTAACCAATGAAGAAGAAACAACCAAAAAAGC  
10 AGCTGAATACATTCAAGGACAATTAGAAGAAAATCTAAAAGGTTTAAAAATTACGATAAC  
ACCAGTTCCTGCAATGTACAAATAGAGCGAGTTATGAAACATGATTTTACTATTAGTCT  
AAGTGGCTGGCAGGCAGATTATCCTGACCCTATGAGTTTTTTAGGTAACCTTGAAAGTTA  
CAGTGTGTTGAATTTTGAGGGTATAGnCATACTAAATA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 481>:

15 **GNMFI88F gnm\_481**

CCGGTGAAATTCACCGAAATAAACATATTCTGCTTGATACATGATATTGCCTAATTGAA  
AAGCGTCATTTACTTTGTCCTTGTTTTGTACATAAGTGTTGTATGGAATTGCTGTATTCC  
AATAAACTTAGCTAGCCTGTGTTGATCTTGTTTCGAATAATTAGCAAATGGCTAGCAA  
TTTCCGTATTAAACACAAATAATTTATCTTTATTTAAACGGTCTATCTCTATTTCTAAAA  
20 TATATGGATCGTCATTATTAGCTGCAGCAATTCATAGCCAAGACAACCTATCTTCTCAA  
ACATAAAAGTAGCACATCTAAGATCGTAGCCTTTCCACCCGTAAGTATTTAGAATAGAAT  
AGGTTTGCTGATTAAAGAGCGTATGGTCTGTACCTGTCTCTCTTCTTAAAGATCCTTTG  
CTTTTTTTACTCCTACTAAACCGTGTCTTCTAATGCTATTGATATTGGACTTATCTGTTA  
AATGAATTAACCTATT

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 482>:

**GNMFI89F gnm\_482**

CCAGCGCTGCTTCTTCGGGATCAGGCGTCGTTAAACCAAACCTCTAAATGTGCGCCGTTAG  
TTCTTAAAAAGCTTTGTAAACGAAAATGTTGTAGCTGTTCCATACTAGTGGCACCAA  
30 TGATTGCTTTAGTGGAGAGCTTCAAAGTACCACCAAGCATAATAGTGGGAATTTCCATAT  
CGCTAAGTTTTGTCAGCGTGATGCACGGAATTCGTCACTACATGGATTTGTTTCCCACTA  
AAAAAGGGATCATTTCTAACGTGGTTGAACCAGCATCTAAATAGATCATATCGCCATCTT  
GTACACAACCTAACGGCTAAAGAAGCAATCTTTTGCTTTTCGTGCGTGTTTTTGATTGATT  
TTTCCGTCATGTTTTGTTCAAAGCCTAAATTAAGAATACGCTTAGCGCCGCGGTGAATGC  
35 GTTCTAACAAATTGGCGTCTTCTAATTCTTGTAATCGCGGCGGATTGTGGATTCTGAAG  
CATTGAACAAGCTAGCAAGTCTTGCGATTGACGACTGATT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 483>:

**GNMFI90F gnm\_483**

40 CCCGCACGTTCTAAAATTTTCAGCAATTTCTCATTGGTTAAAGCGGTGCTTCTTTCAGT  
TCGTGCTTATCAATCAGCTGGAAATTTCTCTCCGCACGTGGCCGTAGTTGGGCACGAACT  
TTTGAAAACCTTCACAACGTCGTCTGTAATCGTCCATTCTCCTGTACCTTCCCAAGCCTGC  
ACTGCTCGAGGCGCCACGTAATTATCAGCCCAGTATAATAATTCTTCTTTTCAATTTCA

5 AAGGTCGAAATATTGTCTAAACGAGGTTGAATAATCGTCATTTCGCACGGTTTCAAATTCG  
TAAATAATGTCGTACTTATCCACCGCACCAAGCGCATATAACATCAGTTGAGGGTTTAAA  
TACGCATCAACAGGAACACCTTTGCCGTATTTCAAGTCGATAATTTCAATCGTCTTATCT  
GATAAGACAACCACGTCCGAAGTTCCAAATCCTTCTGGGACCCATTTTGAAAATCTACT  
TTTTGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 484>:

**GNMFI91F gnm\_484**

10 CCCAAAGTGATTTAACGTTTAATTCAGCGTGGGCGTTTAATCCTTCGACCAATGGTTATG  
CGTTAGGTTTAGCAATGATGGACGGTGAGCGCCGTGTAACTTGTTAAATTTTGCCAAAG  
AACAAAAGAAAGATTGGCAGGCTGTCCAGTACAACTCGAGTATATGTGGAATCATGACG  
GCTCAGACAGTGCCTTGCTGAAACGTATGTGAAAAGCTCTGATGTGAATCAATTAGCTG  
TAGATATTTTGGTACATTGGGAACGTGCAGGCACTAAAAATGATCCCAACGAACAAATCA  
15 AACGAAAAACAAGTGCGAATAATTGGTATAAGAGACTGTCTACAGGTTCTATGGGGGCAG  
GTTACAGCCAATATTGGTGGTGGCAAAATTGATGTGTTAGAACAAATGTTAGGGCAACAG  
TCAATGGAGGTCAGTGTTAIGGGGGGACTTCTTATTATGTTGAAAAGATGGGCTTTCAT  
CTTTAATGAATACAGGGCATATGTTTGCCAGTGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 485>:

20 **GNMFI92F gnm\_485**

CCTGCCCGAGAATGTGGCGGAGGTATTAAATTCGCGCTTAGTTTGTCTAATTCAAGCAC  
GAAAAAATATCTGATGATGGATAATGCACGTTGTTTCAGATAATCGCATTTCATGGCATT  
ACAATTTTACGGTGCCCAACCGCACAGGACGGTGGGCAGGGCGATTATTACAAGTACAGAA  
CTTGCCTAGAAACTATTTAAGTGAAATTGATTTTGCCCGTCAGCTTGTGAAAGCAAAAGA  
25 TGTTGAAGGCATCGAATTAATGTATGAAGATGTGCCAGACACATTGAAACAACCTTATCCG  
AACAGGTTTGTGTTGCCAAAGAAGGGCATCGGTTTCATCGTGTCTGACTTTTCAGCCATTGA  
GGCCCGAGTGATTGCTTGGTATGCCAAACAAGATTGGGTATTAGAAGTATTCCGCACACA  
CGGCAAAATTTACGAAGCAACAGCGGCGCAGATGTTCCATTTAGGCGAAGTGACGGACTA  
CGACTGGAAAAGCCACGAAGGTAAAT

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 486>:

**GNMFI94F gnm\_486**

AAGAAAATTTATTTATCGCTAGTACGATCAAAGAACGGGATCGAAAAGTAGTTCTAGCCG  
AAGCTTTCCAGGTGTTCCAATTAGAACCTGCCTTACTTGGTCGTTCCCTTACTTCTTTTA  
35 CGACTTTTGAAAAAATTACAATGCGCCTAATACAACCTTTTGCTTTCAAAAACAAGTACGC  
TCGTGATTGATGACATCTTTTCTTCATTAACGATTGGACAACGTCAAGAAATTTACCTC  
AATTACCACTAGCAGTTCAACCAAGAAACAAGCGCTTGCTATTTCTGACAAAAGATCCAC  
AAATTCTTGATAGTCCCTATGTGCACCCCTGTCTCTACATGCGTTATTAACTCAAGAA  
AACGTCTGGCACTGATTGCTACCAGACGTTTCTTTACGTTCTCAGTAATTTCAACATCA  
40 GGAAGTGAATAATAAAGCTGGCGACTTTACCAAGTTCACTCTCAACATTAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 487>:

**GNMFI96F gnm\_487**

CCGCTCATTAATAAGAACAGGTTCTGGGTAGTAGTATAGAAGATGCTCCAATGTTTCGCTTG  
AAATTCTGGTAAGATATCTGCCAGTGAATAGGATAAAGTATCTTTTGTGTCGGTGAATAC  
CTTATTTTTCGCTATCTAAATGATACATGGCGTGAATAAGTTCATGAGATATCGTGAAATT  
5 TTTTCTTTTTTCGCCCATGTTAGAATTATAAGCTAGCGTAGTCTCGTAATCATCTTTAAT  
AATCATACCTGATATAGATCTACGTGCTGTTTTTCAAATGGAAAGGGCCTTATTTTAAT  
TGATTTAGATGTTAATATTTTCATCCCAAATATATCTATGCTCATAATTATTAACACTCAT  
TCCCAAACATAACATGTGTGCTGAAATAAATTCGTTAATGGTACCGCAAAAGTTAAGGTA  
CTCGTCTACTTCTACTGTCATCCTGAAAACCACTTGTAATTATTCACCTTAAATTTTCT

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 488>:

**GNMFJ77F gnm\_488**

CCGGCTTCTTCAGGCCAAATCAGCCTTCTGCGCGAGGGGAAGACGTTTGGAGTTGGTTTC  
CAGCTGCGGAGACCACCAAGCAGCAGTGGCGACTTTCGCGGTTATGAACAACCGGAA  
15 ATGGTCAAGAAACGGCCTGTCTGTCGTCATAGCGCGAAACAGGCACAACGGCAAACCTGGTA  
ACGGTCGTACCCCTTAAGCAGCACAGAACCTGTCCCTTTGGCGGACTACCACCACAAAATG  
AGTGGAACCCCTTACCGGACAAGCCGCACATCCAATGTTGGGCAAAATGCGACATGACG  
GCAACAGTCGGATTGGCAGGATTAGACCGATACAAACCCAAAGGGTGCGACCGCTGCATT  
CCAATAATCAGTGAAGAGGATTTTCAGGCGATTAAACAGCCGTTGCCAAGGCATTCAA  
20 CTGTACTAGAATAAAACCGTTCCCTTAAAGGGGCTTGCAAGACTATTCTGAAATATGGGC  
AGCCGCGCACGGGCGACAGGCGATGACAAGCCGTCCGTGCGTTTTATGGGGCGCGGAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 489>:

**GNMFJ87R gnm\_489**

25 TATTGGCTTCATTTAATGCTCCTGAAATCCAAGCGCGTGCTGCTCAAATTGAAGATTTGA  
CCAATAAATTCAAATCAGCAGCACACCGACTGTGATTGTGCGCGGCAAATACCAAGTTG  
AATTTAAAGACTGGCAGTCCGGTATGACCACGATTGACCAGTTGGTGGATAAAGTACGCG  
AAGAGCAGAAAAAGCCGCAATAAGTTGAGGATTGAATGAGTAAAGGCCATCTGAAAATAG  
GATTTTCAGACGGCCTTTTGTATTTAGGCTTTATAGAAGAGATGATTGCTTAAAGCCTTAT  
30 GGTTTTAAATCAGAATATATAGCGGATTAACAAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 490>:

**GNMFK22R gnm\_490**

CCGAAGATGATGCTGGCTTTGCTTCTTCTATGGCCCGGTGGTGTTTTTACAGGAGGACGG  
35 CTTTGGGTAATTCGCCTTGACGAGCAAGAGCGGCAGGTAGTCTCCGGGCAGGCGCAGGG  
CGACATCCTGCATTTATTTGCGCGAGGAAAACAAGACGAGCGTGCCGATGGCTTCGGTGG  
GCGAAATAAGCTTGGGCAGCCATTGATGACGGCGGCGGTGTGGGCTTCGGGGTCTTTAG  
GGCTGGCGTATATAGGGGGGATGTAGAGTTCGCCCTGTTTTCAAAGTCAAAGGGGCTTT  
TAAAGGCGAAGGTAGTGGTTTCAGGCAGCCATTACAACCCGGTTTAGCGCACATACAAGT  
40 TGAAGTTACCCAAAGATTACAGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 491>:

**GNMFL05TR gnm\_491**

5 TACTAACTCTGCTGTCGTTCTTGCAGTTACACCTGCCACAAACAGTTCAATGAGTTTATT  
TGTTTATACCGGCTTAGACGACTTTTTCTCATAAGGGCAACTCTAACTTAATTTGGATT  
CCCTACTTATCTATGAGAGCCCCTTGTTTTAATTGACTATAATCCGCTATATTGTGAGA  
AGCTGGATGAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 492>:

**GNMFL42TR gnm\_492**

10 CAGCTCGGTAATAATTACGAATTCGAGCTCGGTACCAGATTCCCTGTCGGAGATGGAGGA  
GTTTGACCGCTGATTCTGCTGATACGCAAACGTATCAAATATTGGACGGGCAACATAT  
CCTCTCCAGAGTAACGGTTTGCCTTCACCACCAAAACCGGCGGACCTGATTGCCTTGGG  
TAAAGCGGCTGCCGGTTGCGATTGGGCAATGTTGCGCGCCCAACGTTGGCTCAICTACAC  
GCAAATTGCGGAACGCCTTGCCGGGTGCGGCGGCGGTTTTACGGTTACGGTAGAAAGCGT  
15 GTCCGCCGCCGTGTCGGGAGCTTGAAGGACGCTATCTCGAGCTTGTCGCCGCCGCCGCCGT  
CTCTTTTCGGTTTCACGCAnAGATGGGAAAATCCGGCAAGCGGGCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 493>:

**gnm\_493**

20 CCTTTCATTTCGCTGCTGGCGGTTTCTATGGGTTTCGGTATTCATGGGCGCACTGACCTACA  
TCGGCAACGCACCGAACTTCATGGTCAAGGCCATTGCCGAACAGCGCGGCGTACCGATGC  
CGACTTTCTTCGGCTATATGATGTGGTTCGGTTCCTGACACCCGTCTTCATCGTAC  
ATACCCCTATCTTTTTTCGTTTTCAAACGTCTGTAAACGCTATGCCGTCTGAACATTCAGA  
CGGCATTTTAAATTCGGGCATAATCAAATCAATATCCCCCTTCCGACAATTTATAGTGG  
25 ATTAACAAAAATCAGGACAAGGCGACCAAGCCGACAGTACAAATAGTACGGAACCGA  
TTCACTTGGTGCTTCAGCACCTTAGAGAATCGTTCTCTTTGAGCTAAGGCGAGGCAACGC  
CGTACTGGTTTTTTGTTAATCCACTATAAAATCTAAAGAAACCTTTTTTCCCGATAAGTTT  
CCGTGCCGACAGGTCTAGATTCCCGCTGCGCGGAATGACGAAATTTCAAAGTTATGGC  
GTTATCGGAAAAACAAAAATCAAAGCCGGAGAATTTATCCCAAACAACCGGATTTCAA  
30 AAACCAGATGCCCGGCGGAATGACGGATCTTAGGCTTCTGTTTTTGTCTTATAGTGGA  
TTAACAAAAATCAGGACAAGGCGACGAAGCCGACAGTACAAATAGTACGGAACCGAT  
TCACTTGGTGCTTCAGCACCTTAGAGAATCGTTCTCTTTGAGCTAATGCGAGGCAACGCC  
GTACTGGTTTTTTGTTAATCCACTATATTTTTTCAGGAATGACGGTTTGAAATGCCCCGA  
AACCCCAAAAACAGAAACCAGACAAACAGTTTTTCCGCCAAAGCCGGCATTTCGACTT  
TGC

35

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 494>:

**GNMFP26TF gnm\_494**

40 CCGGGTGATGGTATGCGCACGGATGTTTCTGAAATAATCGCTTACCGTGCTTGTTGT  
TTGACCGGTTGCTTGCGGATAATCGTGGGTAATGCGTTCGGCGGCATAAGCTAAATCCG  
CCTGCACATAATACGGGCTGCGGCTGCCGTCTTCACTTGCCGCCTGCGCTGCGGAAGATA  
AGACAACAGACGAGAATAGAAGAGAAGAGAAGAGAAGACAAGAGAAGAGAACAGA  
ACAGAATAGAACAGAAGGTTTTTGGGGGCTGGATTCAATTTGCGACTCCGTATTCGGTTT  
TAACTGATTAAAAAGAACACTTTTCAATGATCTTGACGAGCGGACTATACCAGGTTTGT  
GGCGATGTTTCAACACAATATA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 495>:

**gnm\_495**

```
5  CAGGAAGGACGCGGCATCGGGCTGATTAACAAAATCCGCGCGTATCATCTGCAAGACCAA
   GGTATGGATACGGTTGAAGCCAATTTGGCACTCGGGCTGCCCCTCGATGCCGCGATTTC
   CGTTTGGCGGGGTTGGTGAATCTGATTGCGTGCGGAAGCACCCGTTTCCGATTCCGTGCG
   GAGCAAATGGCGGCACCTTTATGTACCGTTCTGCGTGTGAAACATATAGGCAGATAAAAA
   AGCCGCCCGTTGAAAAGCAGACGACTTATGTTTTGTGGCACTAATTTGTCCCGATAAGCA
   TTAACATATAAATTTATTTATCATTATTGGTGCGGACGGAGAGACTCGAACTCTCACACC
10  TCTCGGCGCCAGAACCTAAATCTGGTGCGTCTACCAATTTCGCCACGTCCGCATGGGAAT
   TGGACGATTATACAGATTTTGTTTTTTGTGCAAGTTTTTCGGCGGGGCTGTTGATGGCT
   TGGGGTTTGGGGCGGTAAAATCTGTTTTTCGTCCGCCTGACATCGGAATCGGGCGGTTTT
   TTGTTTTTATTGACGGAATTTGGGTATGCCTGCTGCTTTGATTAAAGGATTTTCTGCTGAC
   TCAGGGTTTGAAGCTGCCGCTTGACGAGGTTCCGGCGGCGTATCTGACGGCGCAGACGGT
15  AATGGATATGGGGACGGCTTCGATAGACCGTTCCGTTTTGTGGCGCAGTGATGAGGGTTG
   GAAACTTGCCGATTACCTGTCGTGCCACAATGTCCGCGAAGATGCACTGAAACGGCTTTT
   CATGGCTTTGGATTCCGGTGTTTTCGCGCTCGACAGGCGTGCGGAGTGCGGCGGTCTATGC
   CTTGATGCCATCTGAAAACAGGCTTTCCAACGATATGCCTGTCCCGACAGGGCGAGGT
   TTTGGAAAACCTGTGGGATTTGGATGAAGCGGCAGGCAAGGTTTCGCTGGCTTGCCGTTT
20  GCGCAAAGCGGTTGGATGAATGTTGCCTCGGATGTACGCCGTTGGCTGGATTTGGGGGA
   GCTTTCGGGAGAAC
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 496>:

**GNMFP92TR gnm\_496**

```
25  ATCAACAGCGCGCGTATTTTTCGGTCAATCCGCGCAAGGCTTTGACAAAGGCTTCGGTC
   GGGCGGACGAGGTTTCATATGCCGACGAAGGTTTCGACAATCACGCAGGCGATTTCATTG
   CCGTTTTGAGCAAAGGCTTCTTCGAGTTGGGCGATATTGTTGTACTCGATTACCAAAGTG
   TGTTTGGTAAAGTCGGCAGGCACACCGGTGGAAGACGGGTTGCCAAACGTCAGCAGACCG
   CTTGCCGGCTTTCACCAAGTATGCTGTCCGAAT
```

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 497>:

**gnm\_497**

```
35  CCAACATACAGGCCGCTGTAGAAACATGGCGGCAAATCGGATATTTTCAGTCTCCACTATA
   AAGAAGCAGGGGGCGGACTGTCAATACTCAACGCCTGAAAACAACCGTAAAACAGCCTGT
   TTCCTGATAGTCTATCATGCCGAAAAATCAATTCCTGTCTATTACTTTAGGGGGATTTTT
   TCCATATCGCACGATTGCCGTTGCACAAAAACAACAACACAACGGCAAAGCCCCATACC
   GTACCGGCAAGAAAATATGATAAATTATAAACAATGTTTCAGCCACCCGACACAGACCCAC
   ACCGACCCGCCATGAAATTACAACAATTGAAATACGCCTTAGAAGTTTACCAGCACAAACC
   TGAACGTTTCCGAAGCGGCCGAAGCCTTGTCTTACTTCGCAACCCGGCATCTCCAAACAAA
40  TCAAATTGCTGGAAGAAGAAATCGGCATTTCAGATTTTATCCGCAGCGGCAAGCGCGTGG
   TTTCCGGTCTCGCAGCCGGGCAAGGTGGTTTTGGATATTGCGGGACGTATTTTGCGCGATG
   TTCAAACAT
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 498>:



**gnm\_498**

CTTGCCGATTAAGTGGGTATAACGTTTCGTGTTTCTGAGATTGACGGCAACGGCAACGTCGCC  
CAGCAGCGTTTTCAGGACGGGTGGTCGCCACGATAACGGCTTCGGCGGGATTGTCCGCCAG  
CGGATAGCGGATGTGCCACATAGAGCTGTGTTCTCCCAcgtcwGACGACCTTTTCCGTT  
5 TCAACCAATCCCTGCGCTTGATTATGGTAATAATTCTATTTAATTCAATTTGTTAGACA  
ACTCGTTTCTATCCAATCATGAACACCGCCGCCATCTACCGCCAGTACCAAACCTATGTC  
CGTCCGATAAATCCGGCTGGGCGTTGGACGGCTGTTCCGACAGCGCGCTCATTTGCGCAG  
GCAAAACAGCCCGTTTGCATCTGGAAATGTGCATCAACCGCTTCGATTTCGGGCATCACC  
TTGTTCGGGATGCGCGGCGGCGAACGGGCGCGTTTCCACCGAAATCCACAATTTTCAGC  
10 CACAACCTGCGCCTTGTTTCGTTCATGGTGTGCGGGCAGAACCGGTTACAAATGGGCGGCAGG  
GAATACCGCCCATCTGCCGGCGAAATCTGACTGGTACGCGGCGATTTCGGCGGACGTATCC  
GAAACCTGCTGCCCGACAACAGCGGCATGTGCGCGCTGCATTTGGATTTTGTGCTGGA  
AA

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 499>:

**GNMFU01F gnm\_499**

CCGCCATTAACTGGGTAAGTTAAACAAACCAGTTGGGATAGCAATGGTGTATTACTAT  
TTCTTTTTTTCGCTAATTTCTTTGTTTTAAATTGGGTCATTCTTTGTAATCACCTAGAT  
TACTTTGTGTGAGCATTAGATAACCTAACATGGTATGTTCCATCAGATCACTTTGTAAAA  
20 ATAAGTTCACTTTTCCATAATCAAGTCCTAGTGCTAATAAAGTTTTAACAAAGTTGCAAGT  
TGTTATCTTTGAGCATTGTTGGTTCAAAATCAACAGTAATAGCATGAAGATCAGCAACAA  
ATAAAAACAGTTGGTATTGACTTTGGAGTTGTTTTAAACCTTGCATTACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 500>:

**GNMFU02F gnm\_500**

CCCGCGTTAAACTTCCTTTAAAGTTTCAATTTGTTGTGAACCCCTTAAGCTTAAATT  
CACTTGCAAGGTTAACCTTTTAAAGATCAACTAAATTAATTTGGTTTAAATTCAAGTTTT  
TATTAGAACTTTAAAGTTTTCTTTATGAGTTACTACTATTTGTTATCTTTGGTTAATT  
GAATATCAATTCAAATACCATCAAAATCAAAAACCTGGGCTGCTTGAAATGCTAATTTGG  
30 TGTTTTCTGGTGCAATAGAACTATAACCGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 501>:

**GNMFU04F gnm\_501**

CAGTGAGTTTTTTTGACAAGAACTCATGGGCTTTTTGTGGATCAGAGCCAATCTGAACA  
35 AGCTGCTATTAGCTTTTGAATTTATATCAGGATTTAATTATTAACAAACTTTGTATCCC  
TGCTTTTGTGGTTTGAAAAGTGAAAGTGAAAAATTTGCAGGTGCTAAAAACACATGGAC  
AATAGAAGCAATTATGCCTGATGGACAAAGTTTACAATGTGCCGGGTACCGAGCTCGAAT  
TCGTAATCATGGTCATAGCTGTTTCTGTGTGAAATGTTATCCGCTCACAATCCACAC  
AACATACGAGCCGGAAGCATAAAGTGTAAGCCTGGGGTGCCTAATGAGTGAGCTAACTC  
40 ACATTAATTGCGTTGCGCTCACTGCCGCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTG  
CATTAAATGAATCGGCCAACGCGCGGGGAGAGGCGGTTTTCGTATTGGGCGCTCTTCCGCT  
TCCTCGCTCACTGACTCGCTGCGCTCGGTGCTTCCGCTGCGGCGAGCGGTATCAGCTCAC  
TCAAAGGCGGTAAAACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAACATGTGA  
GCAAAAAGGCCAGCGAAAGGCCAGGAACCGTAAAAAGGCCGCTTGCTGGCGTTTTTCCAT  
45 AGGCTCCGCCCCCTGACGAGCATCACAAAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 502>:

**GNMFU07F gnm\_502**

5 GGTATTTGGTCCATTAAGGTGAGAAGTTATTACGTATTATTAACAAAAGGGTGATGTTT  
AAATCAAATTCATCTTTTTGTTTGTGATCTTGGAATTATTTTTTCAATATAACCATCA  
CCATTAATAATTGTTTGACAGATTTTATTAATGGTTTTTCACTCCACACTCCGTTAATG  
TTAATGTAAGTGCAGAACTTACGTGGTTTTAGTTTTAACTGCTGGATATTTCAATATAAC  
GGGATAATTTTTAACTGCTTTTTATTTGTAAATTCTTACAA

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 503>:

**GNMFU08F gnm\_503**

15 CCAGAAACTTAGTTTTTGGAAACCAGATCATATAACGATGGTCATTAGGTGGTTGTTATTG  
CAACCGAAACAGATAGTTCCCAAATTAATTTTCTAAACGGTTCTACTAATCAAGGTACAA  
GTTCTCTTAGTTGAGGAGGTACCTTGGGTACCACCATCAGACAGGTGCAAACCGTTATT  
CTACTTATCCAAACGGAGTTAAATTTTTAATTTGGAATGATATTGCTCCTGGTTCAGTAA  
AGTGAAACCCATATGCACGTTTTCTGTGTGGATAGAAAAACGAAGTTCGAAGTCAGG  
GTACCGAGCTCGAATTCGTAATCATGGTCATAGCTGTTTCTGCGTGAAATTGTTATCCG  
CTCACAATTCACACAACATACGAGCCGGAAGCATAAAGTGTAAGCCTGGGGTGCCTAA  
TGAGTGAGCTAACTCACATTAATTGCGTTGCGCTCACTGCCCCGCTTCCAGTCGGGAAAC  
20 CTGTCGTGCCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAGAAGCGGTTTGCGTATT  
GGGCGCTCTTCCGCTTCTCGCTCACTGACTCGCTGCGCTCGTTCGTTCCGCTGCGGCGA  
GCGGTATCAGCTCACTCAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 504>:

**GNMFU09F gnm\_504**

25 TTAAATCGGAAATCATCTAAAGTATAGACAAAAAGCGATAGTCATCAAACCTATTAAGT  
GCTAAATTAAGTAAATCAGTTAGTGAATTTTTTCAGTTTTTCTAAAGCTTGATTTGTTGA  
CTCATCAAGTAAACAGTTTTTTCATAATTGATTTGATTCTGAGCTAAACCTTGATGGTTT  
AAGTTATTAATATTTTTAGTAATTAGATCGCAGTTCTCATTAAAGCTCAATAATTAAATCA  
30 TGCACATCTGTTTCATTTTGGAACTAATTCAATGGCTTTAATTGTTGTTTTTAAAGC  
TCATTTTTCTTTTCATATTGTTGAATTTGATTACGAAATCATCAATATTTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 505>:

**GNMFU11F gnm\_505**

35 CCAAATTTAATGTACTAATTCTGTTAGATAGATAAGAATTGGCTACTAACTCCACCTCCT  
ACTAACAACATTTTAGGGGCAAATTTTTTAATTGCATTTTTAACATGATCAATGTAATGA  
TCAATAATAGTAGCTTGAAATTTGGATGCTAATTCCTCCAATCAATTCGGGTTTTATTA  
GCACTTATTTGTTTAATCTTGTTTAAACACTGAGATTTTAAACCAGAATAGGAAAACCTTA  
GTTCACTTAGTAGAAGGTTTAAAGAAATAGTGAGGTTTAACTAATTCTTTATTAATAAAGA  
40 CTATCAATTTTACTACCAGCAGGATAATCAAAGCCCATTGCTCTGCCTATCTTGTCATAA  
ACTTCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 506>:

**GNMFU12F gnm\_506**

AGATAAGAAATACAAAATTCTCATTGAACAAGAGTTAAGTAATCCCATTCTTAGTTA  
5 TGAAAATGACGAATTAAAAGCACAAATGTCAAACCAAGAATTAAGTGAATGATTAGTTCA  
AAAAAGTAAATCTTTCATTTTTGGATGAATAATGCTGGTTTTAAAACTTTAACTTCAT  
TGCACCTTATCCTATTGATAAAAATGAATCTAAATTAAGTAAAAGCTGTAAGTGTTC  
TCAATATGATAAGAGAGTTTGAAACAAAGGTATTTGCAACAGAATTTATCCCTATCCACAA  
GATTAACCAACAGATCGATGATGCAAGATTATTGGGCAAATCTTTGAATTAAAAACCCA  
10 TGAAAGTTTAACTGGTAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 507>:

**GNMFU14F gnm\_507**

CCCAGGATTGGCAATTTTTATGCCTGGTTGCATCTTACTTTCCTCGGGTTCTTTTAGAAG  
15 TTATATCCCAACTCCTAGTTTAAAGAAATACTGTTGGTAATCACACAGTTATGTTAATAA  
TACTGTCCCTAAAAACAATTTTTATGAAAAGTTTTATGATCTAACTTTTGCTTTAAATTT  
CACTAATCAGAAAACCAAGAGTTTGGTACTGGTTGGTTAATTGACTGAAAAGGAGATGA  
AACTAAAGATCTTAATACATTAAGTATGGGTACCGAGCTCGAATTCGTAATCATGGTCAT  
AGCTGTTTCCTGCGTGAAATTGTTATCCGCTCACAATTCACACACATACGAGCCGGAA  
20 GCATAAAGTGTAAGCCTGGGGTGCCTAATGAGTGAGCTAACTCACATTAATTGCGTTGC  
GCTCACTGCCCCGCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCC  
AACGCGCGGGGAGAGCGGTTTTCGTATTGGGCGCTCTTCCGCTTCCTCGCTCACTGACT  
CGCTGCGCTCGGTCGTTTCGGCTCGGCGCAACGGTATCAGCTCACTCAAAGGCGGTAATAC  
GGTTATCCACAGAATCAGGGGATAACGCAGGAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 508>:

**GNMFU15F gnm\_508**

ATCCTTATAGCTATTTTCGACGAGATCCAGCTATCACGGTCCACTAATTGGAATTTACCCC  
CTAATCACAAAGTCATCCGCTATCGTTTCAACGAGAGTCGGTTCGGTCTCCAGTTAATGT  
30 TACTCAACCTTCAACCTGCTCATGACTAGCTCAACCCGTTTCGGGTCTATGATAACAAAC  
AAACGCTCTCTTAAACTCGCTTTTCGCTACAGCTCCCCATCTCCTGGTTAACTAACGCTT  
GCTATCATAACTCGCCGGCTCATACTTCAAACGCACGCCATCACACATTAATGTGCTCT  
GACACGTTGTAGGCATATGGTTTCAGAATCTATTCA

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 509>:

**GNMFU16F gnm\_509**

CCGTGAGTTGTTTCACGTTGTTTTAAAGTGATTCAATAGCTTTACTGAAAGCAGTTTGCT  
CAAGGTTTAACTGGTGTGTTTCACGTTCCAGTTCTAGCTGAGCTTGACTGTGTCTTGCT  
TTTGGTTTTGCAGCGCTTGAAACCTGTTATCAAGTTCTAGTTTGACCTGATTATTTTTTT  
40 CAGCTAACTTGTCAGTTTCACGTTGCTTAGCTTCAATTTGCTAAATTCTTGGTCCTTTT  
GGAGTTCAAAAACCTGATAGTCTTTTTGTAGATCACTAAAAGCAATCTTAGTTCTGTTT  
CCTTTTGGGTTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 510>:

**GNMFU19F gnm\_510**

5 TTTGCAAAACAACCTGAATCAACAACCTGATAGCTACAGCTTTGACAGTGATTACCTCAA  
CCAACCCTTGACCAACCTTCTTTAGATGATCATGTTTCAGTACAACCTTTGATCACCATGAA  
GAGCTCAAACCAGTTGCTGAAGAACAAAATAATTATCAAGTTGGATTTGATCAAGTTCAA  
GCTAATCTTGATAATAATGAGGAAATACAACCAACTGCTGAAAAAAGTAACTACTGAT  
TTTGAAAGTAAACAAG

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 511>:

**GNMFU23F gnm\_511**

15 CCTGACAACTAAATCAAAGTGAAAGATATTTTTCGCTTAGCTTCAGGGCAAATTTTTTA  
AAAGTTAATTTTGATAAATGTGTTTTTGCAAGTACAAAAACATCATAATCTTGCTTTA  
GTTACAAAAAATTTTCGAATTATTCGTTGAAGATGAAAGATAAATTTAGTTTTCAAAA  
AAACTATGATTTCAACTTAGTTAGTGATGGGCTTTATGAAATTTGAAATAATGCTGGTTT  
TTTTAAACCTAAAGATAAAAACAATTCTTTTACAGCAATTCTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 512>:

**GNMFU25F gnm\_512**

20 CAGGGTGGTTTTTCTTTTCACCAGTGAGACGGGCAACAGCTGATTGCCCTTCACCGCCTG  
GCCCTGAGAGAGTTGCAGCAAGCGGTCCACGCTGGTTTGCCCCAGCAGGCGAAAATCCTG  
TTTGATGGTGGTTAACGGCGGGATATAACATGAGCTGTCTTCGGTATCGTCGTATCCAC  
TACCGAGATATCCGCACCAACGCGCACCCGGACTCGGTAATGGCGC

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 513>:

**GNMFU27F gnm\_513**

30 ACCTGTTTCAAGTGAAAGTTGGTAGTTGTGTTCAACTGAACTAATTGCATTTCTTCTAAC  
CTGAGCATCAACTTGTCTTTTCTTTGGCGGGTTTTGGCTTGCTCACGGTTTTGTTCAA  
GGTGAGAGTAACAGAAGGTAATCCCCCATTAACCAATCAGGACTTGTCAATGTTGTCAAG  
TTCACTAGCAGTTTTATCATTAGTGTTTTTAGTAATGTTTACAGAAGAAAGCCCTGAAT  
GAATAAACTGTTAGCATAACTTTTTTCAACA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 514>:

**GNMFU30F gnm\_514**

35 CCAGCCACTAGGTAAGTTAACCAATAGTGGTACATACTGGGCACGGGGCAAACATCGTGT  
TAGGATCAAATAGTTCAGTTACTGGTAAGGTGAATAACCTATTAAAGTCAATCTGGTTAC  
CAGGTTTAAAGCTAATTTTTTCAGTATCACTATCACTAGTTGCTCCCTGGCCATTGATAA  
GGTTAACAAGGGGAGTAGATACTACGCCAGTTAGTTTACCATCCATCTTGGTAAATGTAC  
TATCACCTATCCCTATTTCACTCTTATTGTTTTGTTTACTATCAAAGAACTTTTAAAGGG  
40 GTACCGAGCTCGAATTCGTAATCATGGTCATAGCTGTTTCTGTGTGAAATTGTTATCCG

-780-

CTCACAAATTCACACAACATACGAGCCGGAAGCATAAAGTGTAAGCCTGGGGTGCCTAA  
TGAGTGAGCTAACTCACATTAATTGCGTTGCGCTCACTGCCCCTTTCCAGTCGGGAAAC  
CTGTCGTGCCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAGAGCGGTTTGCCTATT  
GGGCGCTCTTCCGCTTCCCTCGCTCACTGACTCGCTGCGCTCGGTCTCGGCTGCGGCGA  
5 GCGGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCA  
GGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTG  
C

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 515>:

10 **GNMFU31F gnm\_515**

CCGATCTGAAGGCTTGGGGATTTTGTAGTGAGTTGAAAACATATGCGAGACACTTAGAGT  
TGAGGATGGCTAACTCAACCCCTTACAGTATCTTTGATTATTTTAAGGGGGATTGGTTAC  
TGGTTATTGATGAATCACACCAAACCTTTACCGCAACTTAATGGGATGTATAACACTGATC  
TTTCAAGAAAGCAAAGCTTAATTGATTATGGTTTTCGACTCCCATCTGCACTTGATAACA  
15 GACCGCTCTCATTTGCTGAATTACAACAAAAATGCAAAAAGTTATTTATGTTTCAGCAA  
CTCCAAGAGATAAAGAGATTAGTTTAAAGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 516>:

**GNMFU33F gnm\_516**

20 GCGAAGATGATCTTAAGGGCTTAGATTCCAATCAAACCTCAAGCAGGAAATGTTCCAGAAG  
TTGAGACCGTTTTTTGTTTACGAAGATGATCTTAAAGGCTTAGATTCTATTATTAAAGACG  
ACCAACAACATGATGAAATTGCTAAACATGTTGAACATTTAAGTCAAGATTATTCTAAAG  
AGATAAAAGATAGTGCTAAAGCAGATTTATCTAATATTTCTGATGATATTGATTCAGTTT  
GAAAAGAATTCGGTTCTTTTACTGATGAGACACAAAAAA

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 517>:

**GNMFU37F gnm\_517**

30 GACTCTAGAGGATCCCCGTTATTAGTCACTATCCCCCTTATGAAAAGACTATTTGGAGGTT  
AAAATTCTAAGTACCATGGAGTTGAAAACCCCTAACTTTAAGCTAATTGATGAAAAGATT  
GCTGAATTTAATAAGAGTAATGAAAACCTGATTGTAAACTACTTCAAAAAGAAAAGGAA  
TTTGCCACAAACCAAGTTACTGTTTCAGTTTGATACTCAGTCAAAAAAGTCAGAAGAAGTG  
AAAAACCTAGTAAAAAAATACTGAAAAGTTATCACTGGGTACCGAGCTCGAATTTCGTAA  
TCATGGTCATAGCTGTTTCTGTGTGAAATTGTTATCCGCTCACAAATCCACACAACATA  
CGAGCCGGAAGCATAAAGTGTAAGCCTGGGGTGCCTAATGAGTGAGCTAACTCACATTA  
35 ATTGCGTTGCGCTCACTGCCCCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAA  
TGAATCGGCCAACGCGCGGGGAGAGGCGGTTTGCCTATTGGGCGCTCTTCCGCTTCCTCG  
CTCACTGACTCGCTGCGCTCGGTCTCGGCTGCGGCGAACGGTATCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 518>:

40 **GNMFU39F gnm\_518**

AAGTTTATTTCTTTTTCTTTGCCTCTATTATATTTCTGTGAATGATGTGGTTTTATTTT  
GTTATTGGAAATAATAACGTTATTCATTTTTTTCAAATTTTATTCATTCACCTTTTATT  
AATTAATATTTTCATTTTTTGATTAAAGTATTAATTTCTGGGTTATCAAGGGTTATGATATT

TATTTCTATTTTTTATTTTCTTTAATATCTATTATTTATTATAAGAACTAAAATGTCTA  
TAATTTTGTTTCATAAAAAGCTTATAATTAAGCATAAAATGCTTAATTATAGTAATAATTAA  
TACTCTCTAAAATAGATACTATTATATATAACAG

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 519>:

**GNMFU40F gnm\_519**

CCTGCAACTAATTTAATTGCTTGGAGACTGAATGCAATCCAAAGTGGCAATATTAAACCT  
TCAACTACTTTTAAGTTGGAATTTGTTAATTTTAAACACCAACAGAAGTTTGTTATTAAT  
10 TGGTTTAAAAATGAAAGTGAATCACTGCGTGATTCCAATCACAGTTTGAGAGAATCAAT  
AAGTTAGTGGAAGGGAGTTTGTTAAGTAACAATGTTAAGTTTAGCACAAATAGAAAGTT  
GGTTTTTTATCGCTCCAGCACTGCTTTTAGCAGTATTGAGTGGTTATCTCGCTGAACGCG  
TTGGGATCATTAATATTGCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 520>:

- 15 **GNMFU43F gnm\_520**

TTTACTGTGGTTTGGATTAACTTATCCTCATTGAATTTCACTGGTAGTGCTGCAGTTCTG  
TGATCCTGTCAAACGATGGCATTATAAACAGGCCAAACCATTTTCTTTATTTTCATAAACT  
ATTGTTTCTCTTTGATTGGTAATACCACTGCAATCACTTCATGAGATTTGATTTGTGCT  
TTATTTTATAGCACTTTGCATGGTAGCTAGTTGGGCTGATCAAATTTCTAGTGGATCTTGT  
20 TCAACTCAACCACTATTAGGAAAAAAGTGTTAAATTCGTTTTGTGCTATTGCTATTTGG  
TTAAGATTGTGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 521>:

**GNMFU45R gnm\_521**

GTTGATGGCGAGATAACGTTTGTGCGTAATCTGGACACGTAAAATCTAAAGAACCGTTTTTC  
GAGGGCGATGTAGCGGTTGTGCGGCGGCAACCAAAATATTGCCGGGGTGTCATATCCGCGTG  
GAAAAAGCCGTCGCGGAAGACTTGCGTGAAGAAGATTTCCACGCCGTAATCGGCGAGTTT  
GTGCAAAATCGATGCCGCTCTGCTTTGAGTTTGGCGATGTCGGAAACCGGCGTGCCGTCCAT  
CCATTCGATGGTCAGCACGTCGCTGGTGAGTAGTCGTAAAACACCTTCGGCACAATCAG  
30 CATATCGCTGTTTTGGAAATTGCGTCCGAGCTGGCTTGGCATTGCCGGCTCGCGCATCAA  
GTCCAACCTCGTCGTGCAGATATTTGTCGAACTCCGCAACCACTTCGCGCGGCTTCAGACG  
CTTGCCGTCCGGCAAACAGACGCTCGACCCAGCCTGCACCAAAGCGCATCAGCGACAAATC  
CTGTTTCGATCACGGGCAAAAGGTTGGGGCGCAAACTTTAACC

- 35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 522>:

**GNMFU45F gnm\_522**

TAGAGGATCCCCTGATCCACTGTTAATTGATCAAATGCATTTAAGCCAATAAGCTAAGGG  
GCAATAACTTTATTAACGTTATCAACGGCTTCGTTAACGCCCTTACCAAAATAATTTTTT  
GGATCATTATCACGTAATTCAATTGCTTCTTTCTCACCTGTAGAAGCACCTGATGGAACC  
40 ATCGCTTCACCTACATGACCAGATGCCAATTTAACAACACAAGCTACTGTTGGAACACCC  
CGAGAATCAAAACTTGATAAGCAAAAATATCGGTTATTTTGAATTGATGTTTAGATTT  
GAACTTCCCGGGTACCGAGCTCGAATTCGTAATCATGGTCATAGCTGTTTCCTGCGTGAA  
ATTGTTATCCGCTCACAATCCACACAACATACGAGCCGGAAGCATAAAGTGTAAGCCCT

GGGGTGCCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTCACTGCCCCGCTTTCC  
AGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAGAAGCG  
GTTTGCCTATTGGGCGCTCTTCCGCTTCCTCGCTCACTGACTCGCTGCGCTCGGTCGTTTC  
GGCTGCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAG  
5 GGGATAACGCAGGAAAGAACATGTGAGCAAAAAGGCAGCAAAAAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 523>:

**gnm\_523**

CCCCTTAAAAGCCTTTGATTATTCCAAAGCCTTTTGAATAAGGCGTGGCTTCACGTAAAT  
10 TAGGTCAAAATTTTACGGTTAATTTAAGCGTCATTAAAAGAATTTTGTCTTTGTTAAAA  
ATTTAAATCCACAAGCAATTGTTGAAATAGGTGTTGGTAAAGGAGCGTTAACAAATTATT  
TGTTAAAACCTCAAATACCTTACAAGGGGATAGAAATTGATAAACGCTTAATTGAATATC  
TTCTAGTTGAAAAGATATTAAGTGAAGACCACTAGTTAAAGGCGATATTCTCAAAAAGG  
ACTTTAATAGTTTTTTTTGAAAATTTAAGTCCATTGGGTACCGAGCTCGAATTCGTAATCA  
15 TGGTCATAGCTGTTTTCCTGCGTGAAATTGTTATCCGCTCACAATTCCACACAACATACGA  
GCCGGAAGCATAAAGTGTAAGCCTGGGGTGCCTAATGAGTGAGCTAACTCACATTAATT  
GCGTTGCGCTCACTGCCCCGCTTCCAGTCGGGAAACCTGTGCGTGCCAGCTGCATTAATGA  
ATCGGCCAACGCGCGGGGAGAAGCGGTTTGCCTATTGGGCGCTCTTCCGCTTCCTCGCTC  
ACTGACTCGCTGCGCTCGGTCGTTTCGGCTGCGGCGAGCGGTATCAGCTCACTCAAAGGCG  
20 GTAATACGGTTATCCACAGAATCAGGGGATAACGCAAGAAAGAACATGTGAGCAAAAAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 524>:

**GNMFU50F gnm\_524**

TGGCTTTTGCAATGCAAACATCCAAAACCACACATAACCCCTTTGTTAACCAATCAATAGT  
25 ATCAGATAAAAATCCAAAAATAAAACCCCAATAGGACCAAGATCCATCCGAACAATGC  
AAAGGGAATCCTTAGAAAATAATGCTTAATACATTAGTAACACTAATTGAAAAGATAGA  
AAAGATAAAGGTTAGTGCTAATAAAACA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 525>:

30 **GNMFU51F gnm\_525**

CTAGAGGAGTCCCAAGTTTGAATCGTCATTTAACAAGAAATGAACTTGAGAAAGCTTAA  
TAAAATTCGCTCTTTGATTAAACAAAAATAAGCTCAAAGAGATTTTACTGATTTTGA  
AGGGAGTCAAAAACCTAAATGCAATTGCTTATTTGAAGAGGAATATTCTCAACATGAAAT  
ATTAAGAGTGATCCGCTTTGGTGATTATAGTGTGAGTTGTGTGGTGGCACTCATGTAGC  
35 TAACACTGCTTCAATTGAAGATTGTTTTATTACTGATTTCTATTCTTTAGGAGCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 526>:

**GNMFU53F gnm\_526**

GGAGCATTTAAAAACCAATAAACACCAACTCCAGCAGCACTAAATGCAGTAATAGCAGCA  
40 AACACAAAGTAAAAAATTAATTGCATCTTTTGTAGTTTGTGAGTTGTTCAATACTTTTT  
TGAGAATGGGCTTTCGATTCTCATTACGCTTACTTGCCACACTTGAGGAAGTTTTTGA  
GAGAGAAATTGGACTGGTAAAACAATCACTAAAAAGATGCATGACAGGTCACCAGTTGT  
AGTGAAATTAGAGACAATTTCTGTAAAGGTACTTTTGAAAGATCCCAAAAGTTCAATAA

GATGATTGCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 527>:

**GNMFU55F gnm\_527**

5    CCCCAGTTACTCAAGAACTCGCTTAGAAAATATTAAGGGATGGAAAAAATAATAGAG  
CAAATTTATCAAGAACTGAGGGTTGTAAGAAGAGATGCATTACAAATGATTAAAAAGAT  
AATCACAATGAGGATTTAGAAAACCTTTTAAAGCTGAAATAGAAAATTAACAAAAAT  
TATTCTAATCAATTAGAAGAGATTCAAAAAGACAAAGAAGAAGATTGCTAACAATTTAA  
10    ATGAATGAAAAAGCAAAACAATTCATCAAAAAGCGAACTTCAGTATTCATTGCTTTATTA  
GTTGIATTTTGCTTTTTTCTTTTAATTAGCGCATTGCTGATGGTTTTAACTTTTGATCA  
CCGTGATCAGCAGATTTCAATTCAAGAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 528>:

**GNMFU56F gnm\_528**

15    TTTGGAATTCAACTTAACTGATGATCACATCAAAATTGTTTCAGAGACCCAGATGACGCTA  
AGTTAAGTGATGCCACCTTTGTTATTTTGATATTGAAACCACTGGATTACATGGTAGGT  
ATGATGATGTTATTGAGTTTTCAGCACGCAAAATTAAGAATAACAGCGAGATAGATCATC  
AGCAATTCTTTTTAAAAATTGACAAACCTATCCCAAAAACAATCACTGAAATCACCAAAA  
TAACTGATGAGATGCTTGAAGGCGGTATTGATCAACAGCAAGGTTTAGAAAAGATAAGAA  
20    ATTATCTAGATGATTGTGTTATGGTAGCTCATAATGGTATTAATTTTGATTACCCTTTT  
TGCAAACTCAATTTGAAAAATA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 529>:

**GNMFU57F gnm\_529**

25    CGGTCATTTTACTACGGTGTA AAAACGTTTCATTGCACAGTCGAGAGATTTCAATAATT  
TTAAATTTATATTTTATTATTACCACATGCGACTTGAAATAGAAAACGGGCTTGAATT  
TGTCATGATCCTGTGGTAAATGAACTTGGCAAGATCTGTTTTTTCATCCTTTTACAGG  
TAATTTAACAAACAACTTAGTTTCAGAAAGTCATTTCAATAGATACAGTTTTTATGCCAT  
TAACTACCCAGGGCATGGTAATAGTGTATTATAACAAT  
30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 530>:

**GNMFU63F gnm\_530**

CAAAAATACACTAAAAAACAGTTATTATCCATGTTGGAACCTCTATTGGAACCTGGGAA  
AGGTTTATTGCTGCTTTACTTGAAAAACAAGTGGTAATTTTCCTTTATGGTTAGCACCT  
35    GTTCAAGCCGTAATTATTCCTGTTAATATCCAAAAGCATTTAAAGGCAGCAAAAAAATT  
TATAACAAATTGCTAAAAGAAAACATCCGTGTAAATTTAGATGATAATCAAGATCGCTTA  
GCTAAAAAAGTTAGACAAGCAATCATTGAAAAAATTCCTTTACAACCTATTGTTGGAGAT  
AAAGAAATAGAGAATTTAGAGAAGTTGACATGCCGTGGTTTTAAAGGTGAAAAA

40    The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 531>:



**GNMFU64F gnm\_531**

GGCCCTGCTGGTTATATTGCTGCGGAGTATGCTGGCAAACATAAACTTAAAACCCCTAGTG  
ATTGAAAAGCAATACTTTGGTGGGTGTGTTTAAATGTTGGGTGTATCCCACTAAAACG  
TTGTTAAAAAGAGCAAAGATTATTGATTATTTAGTTCATGCCAAAGATTATGGTATCACT  
5 ATTAATGGTCAAGCTAACTTGATTGAAAACAACTGTTAAACAAAAACAGGAAGTAGTT  
GATAAATTAGTTGCAGGGGTAAAAACAATTATTAAGGGTGCTAAGGTAGAAAGTATTGAA  
GGGAAGCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 532>:

**GNMFU65F gnm\_532**

CCAAAAATGGTTTTGACCATTCTTGGTAAATTTCTAATAGTCGGGAGTTnTCCCGTGGTG  
TTTGGTGACATTTGCAATAGGTTGTATAAATAATCTAAATTTGGATAAAAATTACTTTGA  
TTATTGGTTGAAATATTAAGCTTTTTAACGCTTCATTTTTATCAATTGATTCATCAATT  
15 CTTTGATTAATTAATACTAACTTCTTTAATTGCATTTATGAATTTATCTTTAAATTTAATA  
GTTGGTTTAATT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 533>:

**GNMFU68F gnm\_533**

GGTCAAAAAGCAGCTTTAGAACGATTTAGCAATTAGTAGTGGAACCTTAGCATATAATAA  
20 CGAAATTAATAGTGGTTTTAAAGATGTTACTGTTGATAATTTAGGTGATGCTAGAAAGGT  
TCAAATAGCTAAAGAAAAAACTACTGTTATGGTGGTAAAGGCAATAAGGATAAAATCAA  
AAAGCATGTTGAACCTTCTAAACGGAAGATTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 534>:

**GNMFU70F gnm\_534**

TTGGTCCCATCAATTGGTTGGTAAATTTGGGAGGATGTACAAGAGTTTCTATATGCATTG  
CCGGTAGTGAGTTTAAATCCAGTTGAAGCATTGGGGCTGGGATTGTTGTTTAAGCCAATG  
GAGTTGCGCATCGATCGTCACTGATTGAATTTGAACCAAGATGTACCTCTATCTGGCTT  
TTGCCCTTTTGTGTTGGCCAACTACTGTTTAAGGTATATTTAGTCAAAGGTTGTT  
30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 535>:

**GNMFU71F gnm\_535**

CCCGCCTTCAGCGCCAAAACCATTACAACATGACATGAACTTTTCTTTCATATTTGAT  
GGTTTTGTTGCAACCATTAGTCATTTCAAAAAAGTTAATTTCAATTACTAAAGCAATATC  
35 AAGGTTATAGGGAACAACAATTTGTTGTTGACGTTTTTTAGAACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 536>:

**GNMFU73F gnm\_536**

CTACTGTTTTTTCATTTGAAGCGGATTCAACTGGCAGAGCACTAGTAAATACTCTAGTAA  
TTATTTTGATTACTATCACCATTACTTTTCCACTAGCACTTTTAATTGCAATTTGACTTA  
ACGAGTACAATAATTCAAAAGTGGTTAAAAATGTTTTTAAGTTGTAATTGATTCACTAA  
5 GTTCAATGCCATCTATTATTTATGGATTATTTGGACTTTCTTCTTTTTAAGAGTCTTGC  
AGTTAAGTGCTGGAGGAGCTAATGGTACTAGTTTAATAGCAGGCATTCTAACTATTAGTG  
TTGTTATATTACTCTTCCGGGTACCGAGCTCGAATTCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 537>:

**GNMFU76F gnm\_537**

CCCCCAAAGATAAAACCCCTCGCTTCAGGACATACTATCGCTTCTGCATTAATAGCTTTA  
ATAAACTGTGCCATTTGGGTTAGCACAAAATTAAATAGTTGGGGATTGGAAAATACTGGG  
GTAATGTCATAAAACAATGTACCTTGGTTGGGAAAATTTCAAAGCGCTTGATTGCTTGA  
TCAAGCAACTTAAAGTTTTGATCCATAAATATCTTTTTTTTAAAACTGTTAATTCCTGC  
15 AATTAACTGCTCTTCAATCTGATCAATCTCTTTAAAAGGATGTTTTTTGTGTTTAAAGCT  
CAAACGGGAATGAACATAGTTGAAAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 538>:

**GNMFU77F gnm\_538**

GACATCTTCTTTTCTATCCAGGGATAGTTACTTTTAAGCATGGTGAAGCACGGCATGAAG  
CTTTAAAGATTATTCCTAGTGAATTACTTTTAAGTGAAGTGAAGTGAAGTGAAGTGAAG  
TTCTCCTTTTTCGAGGCAAAGTTAACTGACCTGAATATGTAGTTCATACTGTTAGCACTGT  
TGCTGAAATAAAAAAATAGAAATTGCTGAAATGAAGCGAATTATTGTTAAAAATGCAAA  
AAAATTATTTTGACATTAAAAGTTAAATAAAGCAATTTATTTAACAAATGGATGTTAGAA  
25 CTGAAAGATTAAACGAATTGTTTTTTGTTTATCATAAAAACTTAAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 539>:

**GNMFU78F gnm\_539**

AAATTACCTTGCGTTGACAAACAAGATATTAAACCAGAAGAAGCAGACGAACTTAAAAAG  
30 CGTTTTGTGTAAGTTGGTGCAACTGTTGAAGTTAAATAAAGATGGCAGTACAACAACGGC  
GTTCTAGTAAACACCGTTCGTGATAAAAGACGTTCTCACGATGCACTTACTCTACAACTT  
TAAGTGTTTGTAAGAAATGTGGAAGAAGAAGTTATCACATCGTGTGTGCTCTTGTGGTA  
TGTACGGTGAAGTAAAGATTAAAAAGCTCACTAATT

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 540>:

**GNMFU83F gnm\_540**

AGTTAGTTGTAATTCGCTTCAAAAACACCAAAGCTACCAAAGAAATAGACCTTGATT  
TCACCAAGCTTGATGAGATTATTGCAACCATTTTTGATGAACTAAGAATCCAAAGACTG  
GCTTTACTAACTTCATTAAGCAGTTTAAAAAACCAAAGCAAACTAACAAAAAGATAG  
40 CTGAAATTACTAACTTGATCATTCAACGCCAACAAATTATCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 541>:

**GNMFU84F gnm\_541**

5 ACTAGTTTCATGGTAATCAAAGTTAATAGGATCAATTCCTGCATAAGCAGTTTTAGGTAA  
AGTACTGGTTTGGATAAACACCATTGCATCTTGTTTTAAACGAGTTTGAAGTTGGTAGTT  
CATCTCTTCTGGTTTGGAAATTTATCTTAGGATTGGCAAACCTACCCAATAAGAATGATTG  
GGTTTTTTGATCAAATGGAAACTAAGACCATTTCATCTTTATTGTATGGTTGATAATC  
ATGATCATTCCTTTAAA

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 542>:

**GNMFU86F gnm\_542**

CAAGAAAAATAGATCAGTAGGATCAATCCTTTTTTATGTACCTAGTTTTATTCTGATTAT  
TGCTATTCTAATTGGTTCTTTTGTGCTGGTAGTTTATTGTTGCAAGATGTCAATAATTA  
TCGTGATTCTGCTTGGGAAGTTAGTTTATTTTTCTCACCTAATTTAATTGCAACTTTTTT  
15 TTCAATTTTGTTAACAGGAACAGTAGTTAGTTATCTTTCCCTCGTTATAATTTTGCTGA  
AATTAAAGTATTTACTGATAAGCTTGAAGAAGTTAGAAAAGCATTGTTAAGTGATAATGC  
TAATCACAGTTTATCTATTCAAGAAACGCTTGGTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 543>:

20 **GNMFU89F gnm\_543**

CTGGTTATTCTTGGCCTTTTTAGCGCGGTTAAAAATGGTGCACTTATTTTTGGAGTTTTTT  
AAAGCTTTGTTTCACAATTTTAAGCCAACGCTTTACTTCGTTATGTGCTTCTTGTCAGGG  
TTGGGGTGAAGTAAGTCAATCCCTAAGAGTTAATGGTTTCAAGTGGCGCTAACTAGA  
ACCTGAACCTGAGGAATTTAAAGTAATTATCTTTTCATCTTTTATCACCCTATTAATTTT  
25 TTTAGCTACTAAATACCTGCAACTTGCCAATGGCATACTTGTAACATAGAAGTTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 544>:

**GNMFU91F gnm\_544**

30 ATGTAAACAGTGTTAATTTAACAATAATGAAATGAAATTAAAGTTAAACAACTAAAA  
AAACAATGTGTGAAAGATGCTGAAATTTTCAAACAATCATTAAGCCAAAATTAGATCATA  
ATTTGTGCTCACGTTGTTTTAAAGTGTGTTAAAAAATAATTGTGAAAAGGTTTTCAGAT  
CTTAATCAGATTGATATTTCTCAAGCTTGAAGTTTCTTTCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 545>:

35 **GNMFU92F gnm\_545**

GGCAAAACCCTCTTAACAATTCTTTGTACACAATACTATGGCACTGGCAATAACAATAG  
CAATGATAATGCTAAAGGGTAAAGAGATTAGTGAATAGAGAAAATATTGCGTAACCCAA  
CACAAAGTTAGATTCACTAAACAGATCCTGAAAGGTTTCGTAAACTAAAGGATTGGGAGGA  
GAGATCATACAGATCACTGTTAGCACTAAACCCTTCTGTAAGCTTAAAAAGAAGGGGAT  
40 AATGGTAAACAAAATTGTTGTTAAAGCGCAGGGAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 546>:

**GNMFU93F gnm\_546**

5 ACCTTTTTTCGCTTTTAGGTAGTTTAAAGAAAAGGTTATATGCTAGATGAAATGCTCTTAGA  
ACAGTAAATATTTGCTACAATCATAACGCTTTAGTTTTTAGTTGATACACCAAATCCGT  
AGTCAATTTATTAATACTAGTGAAGTAGATTTTGATGAATAGCGCTGTAAAATATCCT  
GAGCTGAAGATCAAACCTTGAGTCTTATGATAGCACCTTTTAGATCTCGCTATTAAAAAG  
ATAGTTGAGGTTGTAAAGGGTGTGAACATTAAGATTAAAGGTCCTTTACCTTTGCCTACT  
AAAAAGGAAGTGATCA

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 547>:

**GNMFU94F gnm\_547**

15 TCCTAAGTTATTTGATTACTTTAACCGAATTTGTTGATATTGGTGATCAAATTGTTGTTA  
GTGGTAAGCCAATGTTAACTAAACAAAGGTATTAACCTTAGCTGTTGAAGAGATGAAAA  
TCATTGCTAAGTGTTTATTGGTTCCACCTGAAAAGTGACATGGACTTACTGATATTGAAA  
CCCGCGCTCGCAAGCGCTTCTTGATCTTACCTATAACTTAGCAATGCGTGATGTTTTTC  
TGAAACGCACTAAGATTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 548>:

20 **GNMFU95F gnm\_548**

CAAAAAATGAACTCACGATCCACGGAGGAGGAGTTGATTTAAAGTTCCCCCACCATGAAAA  
TGAAAATGCCTTACACATGGCTTTATATAACCAGCCATTACCAAACATTGGATGCATAT  
TGGTCATTTGATGATTGAAAACCAAAAGATGTCAAAGTCATTGCAGAAGTTCTTGTTAGC  
AGTTGATTTTCTTAACCTTTCATGATTTTCGTGTTTTGCGTTGGATCTTTTACCAAAAACA  
25 CTATTAGCATCCTATTGATCTAAACCAATCATTGATTGAAAAAGCTAATAATGATATTCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 549>:

**GNMFU96F gnm\_549**

30 AACCTAGTGAAGCAATTGAAGCAGTATTGAAATATTGGAGTTTTTCATCAGGACTTAAATT  
TCATTCTGATCGGTGATGAAAAGGCTTTTGATGGTCTTGATATACTTCAAAAAATATTA  
CAAAAAAAGTTGCTAATTCCTTTCATTGAAATGACCGACACTCCACTAAGTGCAAGAAGAA  
AAGTTAACAGTTCAATGCAAATAGCCATAAACTTAGTTTCGTGAAGGTAATGCTGATGTTG  
TAATTTTCAGCAGGCTCTTCAGCAGTTTATGCTTCTTTAACAAATGATGCT

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 550>:

**GNMFW16TF gnm\_550**

40 CAGGCATTTATCTGGAAATAACTGAAACCGAACAGACCTAGATTCCCGCCTGCGCGGGAA  
TGACGGCTGCAGATGCCCCACGGTCTTTATAGCGGATTAACAAAAATCAGGACAAGGCGA  
CTAATCCGCAGACAGTACAGATAGTACGGAACCGATTCACTTGTTAAAGAATCGTTCTCT  
TTGAGCTAAGGCGACGCAACGCCGTACTGGTTTTTGTTCATCCACTATACTAAGGAAAT

5 TCAAATTAACCTAGAATTATCCCTATGAGAAAAAGCCGTCTAAGCCGGTATAAACAGAAT  
AAACTCATTGAGCTATTTGTGCGAAAGTTCAAATTTCCATTTTAAACAATTAGTAAAATC  
GAGTTTATCCTAATTGTCCAAGACAACCCCTATAATACTATAATTCAGAATATAAAAATG  
GGTTACATCTAAACATTACGGAATTTTATTCCCTCGCCTGAATTCTATTGTCAGATTCA  
ACGAGACCTCATCATGTCAACGACTCCAACCTTCCCTACACAGACTTTCAAACCGACTGC  
CATGGCGTTAGCTGTTGCAACAACACTTTCTGCCTGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 551>:

**GNMFW46TF gnm\_551**

10 TTGTTAATATATTTTCGCGATTAAACGTTTCTTAATATTAATTCGGGTACAATCCTTTCCG  
CTGATTACCGCTGCCGTTTCTCCCTTTTCGGCAGTGCAGCAAGTAAGACGTTTTCCTCGCA  
ATGTATTGACCATTCATACTTACCCTTGGTATGAATGGTTTTTTTGCACGTTGAAAATG  
CCGTCTGAACGTTGGGTACCGAGCTCGAATTCGTAATCATGGTCATAGCTGTTTCCTGTG  
TGAAATTGTTATCCGCTCACAAATCCACACAACATACGAGCCGGAAGCATAAAGTGTAAG  
15 GCCTGGGGTGCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTCACTGCCGCT  
TTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAGA  
GGCGGTTTGCGTATTGGGCGCTCTTCCGCTTCTCGCTCACTGACTCGCTGCGCTCGGCTC  
GTTCCGCTGCGGCGAGCGGTATCAGCTCAATCAA

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 552>:

**GNMFW72TRC gnm\_552**

AACCGCTCTGCCGTCATTCCCGCACAGGCGGGAATCCATACCTTAGCACAAACAGTAATAT  
TCAAAGATTATCTGAAAGTCCGAGATTCTGGATTCCCGCCTGCGCGGGAATGACGAATTT  
TAGGTTTCTGATTTTGTCTGTTTTGTGGGAATGATGAAATTTGAGTTTATAGGAA  
25 TTTATCGGCAAAAATAGAAACCGCTCTGCCGTCATTCCCGCTCAGGCGGGAATCTAGACC  
TTAGAACAACAGCAATATTCAAAGATTATCTGAAAGTCTGATATTCTACATTCCCCTTT  
CGTGGAATGACGGGATGTAGGTTCTGTTGGGAATGACATGGTGCAGGTTTATGGGAATGAC  
GTGGTGCAGGTTCTG

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 553>:

**GNMFY91F gnm\_553**

GTGCGCCGATTTTCCAAATCTGTTTGAACACCGCCCAATCCGGTTTGCCGAATTTGCGCG  
TCAGTCCGAATGGGCGGAAGAAATTTTCTTGCGGATATGAATCTCCTTTGGCCGAGTCT  
GCCGCTTCTCGATCTGTTTCGGCGCCAGTCCGCAGCCTGCGCCGCCCAAAGCGGGCATAAC  
35 CGAATTTGCCGTAAACGAAAATATAGTTTACGCGGCACGTTCAACACAAACGCCGCAAAGC  
TGACCAACATAATCAGGCGCGGGCGGTTTACGGCTGGAAGTGTAGGCGTGCAGCGCGCGGT  
GTACCATTGCCGCCGCGCATCGCCAAGCTGGTGAACAACATATACTGCGCCATCGTGCCCTT  
CCACATAATCGCTCAAGGTCAGCCAGTTGCGGAAGGCGTAATCGCCGCCACATCAAGAC  
CATGCCGAACACGCCCAAAACAGCCCGAACCATAATCCCCTGCCGCCCGTTTCGCCCAC  
40 TTCGTCGGTTTTACCCGCGCCGTAAAGCTGGGCAATCATCGGGTTTACGCGCGGCCATAAT  
GCCCATAAAGGTAATATAAACCGTGGCAACGCGCTGCTGCCCAAAGCCAACGCCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 554>:

**GNMGA51TR gnm\_554**

AAATTATTTTATTTTGTATGAAAACCTTCGAAAAACATGGTCTGCACAATATCGGGAT  
ATGGAAATTTTCAGTACGGAATTTTGGAAATTTGGAGCGGACAAGGGCGGAAGTCTATATC  
AACGGAAGGCGGGTTTATCATAACGAAGCCGAAATGGCGTCTGCTTCTTTGCGTTAGCTA  
5 ATGGGGGAATACCTGGAATTTGAAGAAAGCGGTACGAAAATTACCGTTGAAATCGGCAGC  
CGGTGGCATTTTAATGAACTATAAGAAATATTAATACACATTTAAhGAGGTACGAnACT  
TC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 555>:

**10 gnm\_555**

AAAGACGGCGTTGATGGTTTTAACATTTGCGCTCATTCCGATTTGAGCCATGGCAATCTT  
CCTTTAATGTGGTGGAAATCATGAGTGTGCCGACACTGTACTGCTGCCTCCGGTCGAAC  
TGCCGTTTCGGGATATGGCAGACGCATCCTTCCTAACCGCATCCGAATACCCCCAAACCT  
GACCGAATGCAAACTGCTGCCGGAACGGTTTGTATGACACTTCTACTACTGGATGTTG  
15 CGGGCGCATTATAATATTTTCCATCCGTCTTGAAACATTTATTTACACTTTATTTACAC  
TGCGGCGGCAAAATCGGTATACGAGCGTCAATACACGTTAAAATGGCGTTTTGCACCAGTT  
TGGGAGTGATGATGGAAACACAGCTTTACATCGGCATCATGTCCGGAACCAGCATGGACG  
GGGCGGATGCCGTACTGATACGGATGGACGGCGGCAATGGCTGGGCGCGGAAGGGCACG  
CCTTTACCCCCCTACCCCGGAGGTTACGCCGCCAATTGCTGGATTTGCAGGACACAGGCG  
20 CAGACGAACCTGCACCGCAGCAGGATTTTGTGCAAGAAGTACGCCCTATATGCGCAA  
CCGCCGCCGAACCTGCTGTGAGTCAAAACCTCGCACCGTCCGACATTACCGCCCTCGGCT  
GCCACGGGCAACCGTCCGACACGCGCCGGAACACGGTTACAGCATAACAGCTTGCCGATT  
TGCCGCTGCTGGCG

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 556>:

**gnm\_556**

CTAGAGGATCCCGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGGTAC  
ACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGA  
30 GTTGGTAGCTCTTGATCCGGCAAACAAACACCGCTGGTAGCGTGTGTTGTTTTGTTTGC  
AAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGGTACCGAGCTCG  
AATTCGTAATCATGGTCATAGCTGTTTCTGTGTGAAATTGTTATCCGCTCACAAATCCA  
CACACATACGAGCCGGAAGCATAAAGTGTAAGCCTGGGGTGCCTAATGAGTGAGCTAA  
CTCACATTAATTGCGTTGCGCTCACTGCCCCGCTTTCCAGTCGGGAAACCTGTCGTGCCAG  
CTGCATTAATGAATCGGCCAACGCGCGGGGAGAGGCGGTTTGCCTATTGGGCGCTCTcCG  
35 CTTCTCGCTCACTGACTCGCTGCGCTCGGTGCTTCGGCTGCGGCGAGCGGTATCAGCTC  
ACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAACATGT  
GAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGCTGGCGTTTTTCC  
ATAGGCTCCGCCCCCTGACGAGCATCAGAAAAATCGACGCTCAAGTCAGAAGTGCGGAAA  
CCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTG

40

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 557>:

**GNMGJ04R gnm\_557**

CATTCCATAGTTTGCCTTTTTACTCTGTTAATTGTGTCTTTTGGTGCATAGCAGTTTTAA  
AGTTTGATATAGTCTCACTTGCTATTTTTGCTTTTGTGCTGTGCTATTGGTGTGCTA  
45 TCCAAGAAATTATTGTTATATCCAATATTATGAAGCTCTTCTTGTGTTTTCTTCTAGG

5 AATTTTATAGTTTTTTATTTTAAATGTTTAGGTTTTTAATCCATTAGAGTTAATATTTTG  
CTTATGGTGTAAAGATAAAGGTCTAATTTCACTTGTTTGCATGTGGATGTCCAGTTTTCCC  
AGGGCCATTTGTTGCAGATTGTCTCTCACCCATTCTTTCTCACCTTTAACACTGCTGTG  
AATGGCCTTTATTTTCTACCTTACACCATTGACTCTCTCCTTCCTAGAAAAAACCTTT  
10 CTCAATCCCCTTAAACTCATTAGTGGATTGCATTGGTCTGGATTATCAGAGGTTTCTG  
TAATTAGGTTGGCTGTGCCAATAAATATCTTCATGGATATCCTGAATTTGTTTTGTATAA  
AGAAGAAATAGGCAGATGACATTGGTAGTGGATCGGTGAGAAATTTGCAATAAACTCAA  
ATGTGCAAGATGTGCCACATTTGTGTTCTTTTCTCAAAATACAAATATTGGATTGGC  
CTCCATCCGTCACAATTTCTGGGCAATTCAAA

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 558>:

**GNMGK65TF gnm\_558**

15 AGCATGGGCAGCGTATCGGCGGCGGCGGCAAGAAAGCTGCCCCGCCGCAACACGACCACT  
CCCGCATAAATGGTTTTCTTGCGCCCGAACTTGTCGGAAGCGATGCCAAAGGGAATTTGA  
ACAAAACCCGGGGCAACCCCTTAATGGCCAATGGCAACCCGACAACGGTTTGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 559>:

**GNMGL93TR gnm\_559**

20 CGTCTGAAGGCTTCAGACGGCATTGTTGCGTTTTGTCGGGCGGTGTTTAGGGGGCGGTAAC  
GGCGTGTTTCGGCACTTTGTCCATATCCCAGTGTGCCACCGCCAGTCGAGCAGTTTCGGC  
AGGGCGGTTCGGTTTTCCGGTGCTTCGGGCAGCTTGAGGTAACGGAACACTTGGCGGATGAG  
TTGTTTCGCGGCGGTTTTAAAGCCAATGCGGGGGCGAGCGTCTGTTTCGACCAGTTCTGCCC  
TTGTGCGTTGGTCATCAGCGGCAGGTGGGCATATTGCGGTGTCTGAACGTCCAAACACTG  
25 CTGCAAATAGGTTTGGCGCTGCGTGGCAACGAGCAAGTCTTGTCCGCGGACGATGTGGGT  
AACGCCCTGTTTCGGCATCGTCGGCAACGACGGCGAGCTGGTATGCCCAGTAACCGTCTGC  
ACGACGCATGACGAAATCGCCGATGTGCTGGCCAGGTTTTGGGCGTAACCGCCGACGAT  
GCCGTCTGAAAAGCCGATAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 560>:

30 **GNMGO35TF gnm\_560**

GAATGACATATTCATAAGTTTCCCGAAATTCACATAACCGAAACCTGACAGTAACCGT  
AGCAACTGAACCGTCATTCCCACGAAAGTGGGAATCTATAAATGAAAAGCAACAGGCATT  
TATCGGAAATAACTGAAACCGAACAGACTATATTCGCGCTGCGCGGGAATGACCGCTGC  
35 AGATGCCCCGACAGTCTTTATAGCGGGTTAACAAGTGTGAGGACAAGGCGGCTACGCCGCA  
GACAGTACAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 561>:

**gnm\_561**

40 AGCATGGCGCACAGCAATGCCGTCTGAATACGCCTCCCGCTCGGTACACGGCGAGATCGG  
CAATGGCAGCGTACTTTGGCCGCCGATATGCTTAAGTTCAGTAACCTTACGCCACCAA  
ACCCTTGCTAGCTAAGGGTTAAACAGCTCACTTGAAATCTACTTAAGTCTAATCTAACT  
ATCCAATATGGATAGATTTTTAAACATAGGGCAAGCAGCAAAATTATTGTAGCTGAAAGC  
ACAATCACTCGCTGGTGGTCTCAAACACGTGCCGACTACCTCGCCGAAAACACTATCAGC

CGCGATAAACCGTGGGAAAAGCTCGTTATCAGCCGCCGCACTTGGTACTATCGCGGGAAA  
CCGATGCTGTCTGAAACGCAACAGGAGAAAAATAATGAGCCGTTACCTGATTACCTTTGA  
TATGGATACCAACTGCCTGAAAGACAATTACCACGGAAATAACTATACCAATGCCTACTC  
CGATATTTAAAACCATCTTGGCTAGACATGGATTTGAGAACATTACAGGGCAGTGTCTATCT  
5 AGGCCGTGAAGGCATCAGTGAAGCACACGGAACAATAGCCATTACAGGAAGTACCGCTCG  
GTTTGATTGGTTTTACTCCTGTATTTCAAACATTAAGTTTTACCGCCTTGAAAGTGATTT  
GAACGCACAATTTATCGCTGATGGTGTGTATCAAGCCAAACAGGCTTTCCTTCAACGTGT  
TGAACAACCTTCGTATATCCCTAACAGAAGCTGGATTGTCTGATGAGCAAATCAATCAGGT  
TCTGGAAAAACAGAAATTTGAATTGGAAAGTCCTAACCTGAAATTAATTAACCTCCTTT  
10 ACTCACCACATCCGCCGCAGCTCTGTAGTTTTTGGCGCGCTGCGGCGATTCTGTGCG  
TTTTAGAGCTTCGGGTAsGGTGTGAAACAACCTCACTCGAAATTTACTTAAGTCTAATCTA  
AACTATCCAAGCAGTAATTAGTACAwAAAAGGCAAACCTATTTTAGGAGTTTAAATTTGC  
AGCTGCGATAAACCGTGGGAGAGTCTCGGCATTTCCCGCGCCACTTTGTACAAACGTGGC  
AA

15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 562>:

**gnm\_562**

CATATAGCCGATGGTATAGATATGCACCATCAACGACACGCCCCGTACCACGACCATCAT  
CATCGCCGTCATCGTATCGACCAAGAAGCCGACGGAGAAATCCAAGCCGCCATTGTGAG  
20 CCAGGTATAGACATTCTCGTCAAACGTGGCGCGGCTGCCGTCAATAAAGCCCCACAGCAC  
ATAAGCCGACAGCACGGCGGACACCGCCACGCGGAGTATCGTAACCGTATGCGCACCGGC  
ACGTCCGATTTTGTGCGCAACAACCCGCAATCAGCGAGCCTGCCAACGGAACAAGGGC  
AATTATCAAATATAAAGTCATATCGTTTCAATTTGATTGAATCCGATTGATTTAAAAATCTA  
TGTTTGTTCGTACAAAATTACTTCGGAAAAACAATCCAACACGCTCCAATCGTTTGCG  
25 TGCCACAGCTAATTGCTCTTCAGTAAATAAATCACACCACGGCTTTTGTAAACACAGATA  
TTCCATACTGTATTTCAAGGCGTGGACTCCGCCACCACTCAAATCAGCTTGCTCGGCGG  
CGGTTAGTTTCGGAGATGACCACTTTGTCCCTCTTTCAACCCGCTTTTACTTCGGTAT  
TCATACTGTCTCTCA

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 563>:

**gnm\_563**

CTTCAACCATGCCAAAACGGGCAGGACGGCGGTTGTGCGACTTGCTCATCAACACGCCCCG  
CATCCAAGACTTCATCCTGAAGGGCGACCTGATGAACATCAGTAAATCATGGAAACCGC  
CAAAACCGACGGAATGCAGACGATGGATCAAAACCTTTTCGAACTGTACCGTCACGGCAT  
35 CATCAGTTACGAAGAAGCCCTGCGCCAGTCCGTTTCCGCCAACCAACCTGCGATTGCACAT  
CCAAGTGCACAAAGAAGGCAAAACGCCGAACTCCTTTACGACAGGGTCAACGGTCTCAA  
CCTCATTTCTGATCCGCAAAACCAATGCCGTCTGAAAACCGCATCCCCGTTTTTCAGAC  
GGCATGATTTTATCCGTCCGG

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 564>:

**gnm\_564**

CGAACAGTCGGCATTGCGCCCCGAATTGTGGCAGGCGTTCGACCGTTGGGGCTGACGCA  
TTTGGTCAGTATTTCCGGTTTGCACGTTACGATGGTGGCGGTGATGTTTGGTGGCTGGC  
GAAGCGGCTGCTTGCTGTTTCCCGCGCCTTCCTGCACGGTCGCGCGTGTGGGTTTTGCG  
45 GCGGGGTGTGCATGCGCTCTGTTTTACGCGCTGCTTGGCGTTTTTCCGTGCCAA



The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 565>:

**gnm\_565**

5 ATAGCGGATGTGGTCAAGTGTATCGACGAATACAGCAACCGCCCGCACGGCGAGCTGCCC  
CGACATCCTGACGGCGGGCATTATACGCCTAAGGCTTATCGGGAAATGAGCCTGGAACAG  
GACGGTATCGCGCCGATATGCTGTGCGCGCAAGAGCTGGCGACGATGTTTATCCCGCAA  
GAGGTGCGAAAGTTACAGCGCGGCTGGCTGGATCATGCTTAACAACCTCTTATTTCTCAAC  
CGAGCTGGCGGAGTATCACAAAGACGAGGTACGGGTACGCTACGATCTGAGCGATGCGTC  
10 GGCGGCCAATGTGTTTGTATGACGGCAAGTTTATTACTAAGGCGCAGGCCAACGGCAA  
TACCCGCGAGGCTTTCCCGACGGCTCGTATCGACCGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 566>:

**gnm\_566**

15 CCTGGGTTTCATCGTCTTCTTCCCAATCTGACCCCAAACATTGCGCTTTTGGTTTGACGTG  
ATGACAGGTAAACATACCTTTATTTTCGGTCTTCACGGGCTTGGTTTCGGGCTGTATTCGCC  
GTTGAAAAAGTCTTTTGCGATGTCAACGCGTGTGATTTTGGGCGGATTGCATTAGTCAG  
GAATGAGAAAAGTCGTGATTCCAGCCTTCTTTTGCAGCGCCGAACCGGTGCCGGTCAG  
TTCGAAAAGAATGGCATTTTGTTGGCCGCCAAAATGGACGCGACCGTATAGGGCGTCTTC  
20 CGAACCCTCAACCAACAGAGCTCATACATACGACCGCCGAAACTTTGGATTCTTTGTA  
GATACCGGAACCGACAACCTTCTTCGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 567>:

**gnm\_567**

25 CCGGCATCCTGCCCCGAAGCGATGCTCAACTATCTGGCACGCTTGGGCTGGGCGCACGGAG  
ACGATGAGTTCTTCACAATGGAACAGTTCATCGAATGGTTTGATTTGAAAGACGTTTCCC  
CGTCTCCAAGCCGATGGACTTGAAAAAACTCTACTGGATCAACGGAGAACACATCACAA  
TCACACACAACGGCAAACCTGCGCGAACTCGTCAAACCCCGCCTTGCGTTGCGCGATATTC  
ATGAAACCGAAGAACCTGCTTTGGAAGATGTGTTGGAAGTGGTCAAAGACCGCACCCAAG  
30 ACTTGGTCACGCTTGCCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 568>:

**GNMGS92TR gnm\_568**

35 CGCCCAAGAGTGCGGACATCGGTACGAAATGCGCGTCTTTCAAACCGAGCTGTTTCGGCAA  
GTCGGCGGTATGCCCTCCACAATGGCGTTGAATTTGTCTTCGCTGTAATCCAGCAGGTCCA  
TTTTGTTGACCGCCACCACAATATGCGGGCAGTTGAGTTGGCGGAGGATGGCGGAATGGT  
GTTTGGCCTGCGGCAGAAGCTGCAAGGGCTGCGCGCCGAAATCCAGTTGGGATGCGTCAA  
CCAGCACGACTGCCGCCGAAGCGGTGCTTGCGCCCGTAACCATATTGCGCGTGTATTGTT  
CGTGCCCCGGAGTGTCGGGGATGATGAATTTCCGTTTCGCCGTGGAAAAATAGCGGTATG  
40 CCACATCGATCGTAATGCCCTGTTTCGCGTTTCGGCTTCCAGTCCGTCGGTCAGGATGGCGA  
GACCAATGCCACGGTTTCCATGCCGTCTGAAACCGGCGCGCCCGTTCCCGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 569>:

**GNMGS94TR gnm\_569**

ATCTGCTTTTTTCAACGCGCGCGGTTTGCCGTCITTTATTGGTAAATTTGGGCGGATCGAT  
TATGCTGCCACAAGCCGGTAATCCACTTCGAATTTATGGCATGAATGATGAATCAAAAA  
CCGTTGAAGCCGTTTTTGTCTTTGGGCGATGGTTTGCATATTCAAAAAATCGCCAAT

5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 570>:

**GNMGT51TR gnm\_570**

CAGGATCCTTGGTGGCCTCCTGCACGGGTTTCGGGCAGGCTTAAAAGGCGCAGGCTGTTGG  
AAATCGCGCTTCGGCTTTTACCGACGGCTTGGGCGATGGTTTCGTGGGTGAGCCCGAAT  
10 CGTCGGCAAGGCGTTTTCAAGCCTTGTGCTTCTTCGATGGGGTTGAGGTTTTCGCGCTGGA  
GGTTTTTCGATCAAACCCATTGCCAATGCGGTTTCGTGCTGATGGTTTTGATAACGGCGG  
GGATTCGGTCAGGCCGGCAATCTGTGCGGCGCGCAACGGCGTTTCGCTGCAATCAGTT  
CGTATCGGGACAGTCCGTGTTCCGCGACGATGACGGGCTGTATCACGCCTTGCGCCTTAA  
TCGAATCTGCCAGTTTCCTGCAAGGCTTCGTGATCGATTTGAACACGCGCCTGATAGCGGC  
15 CGGGCCGGATATCTTTAACCGCAACCGTGGTCAATCGGTGCGCGCTGCTGTTGTCCGCGC  
CGTTGGCGAGCAGCAATCCAAGCGCGCCCCAATCCGCCTTTTACTTTTGCCATACCGC  
CCTCCCGTGCCTATTTCAGATAGGATGTTAAATCGGGTATTTTATCGGATATTGGGTGTTG  
CCGACAATTTGTATCCGCGTTTATCGGATTTCTGTTTTTCACTATAATAGCCGGTTTGC  
CGTTGCAnGCGGTTTTATGGG

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 571>:

**GNMGT89TR gnm\_571**

GCCTGTATGCTCTTCTTTGAAAGTTTCGTATACGTCATGGGCTAAAAGGGCTGTTCCGAC  
ATAAGGAACTGCCCTTGTCCTTAATTTTCGCGCCTAAGCGGGCAAGTTTGCCGACCCCCGC  
25 CAATACGCCAGCGCGGGAACTGATGAAGATACAACCGAACTAATTTACCCGTACTTGA  
TGCTCCAGTAGATACATGCCTAATTTTAAATCTTGAGCTTCTGAAGTTAAATATCTTCC  
CGATTCTCTATCAAATACACCTTCCAAATCTTCTTCTTTTGTGTCATCTGAACCTCGAAT  
ACCTAAATAGTGGAAAnGnTCCGACAGCAGAGTCCCAAGAAAATTACCCGGAGCATTTA  
CTGATGCCAATGCAAATTTAGATACAAAAAACTAAAGCATAGGATAATCTTTAAAAAAT  
30 TTCGCCCTAGGATAATAAACATAACATTTTGCTTCATCTAATTTAATTAATAATGTAGAA  
GAATCAGGGAATTGAATTTCTATAAAATCTCTATCATAACGATGAAAGAAATTCCTAAAA  
ATATCAAATGAAAACGAAGTTTAAAAACCCCTTTTCTAATCAATTCCTATAATAAAT  
AACGCTTGTGGTAAATCTCTATAAATATGTGAATCAGTTTGAAAATTTAACTAAATGATA  
TTCAGAAA

35

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 572>:

**GNMGT90TR gnm\_572**

TGAATATCCAGTCCAACCTTGACGAACCCTTTTCCGGCAGCATTACCGGTAACCGCGCGA  
AGAAGCCAAAGCCCTGCTAGGCGGCGGCAGCGTTACCGTTTCCGAAAAAGGCCTGACCGC  
40 CAAAGTCCACAAGTTGGGCGACAAAGCCGTCATTGCCGTTTCTTCCGAACAGGCAGTCCG  
CGATCCCGTCTGGTGTTCCGCGATCGGCGCATGCGACTTCCAACCAAACCGCACCGCCAT  
CCTCGATCCTGTCCGCTACTCGCCCAAAACCAAATCTGCACCTTTCAGACGGCAAGACACA  
CCGCAGCAGAACCATTTATGCAGAGTCCCAAGAAAATCAAAACGCCAAATCCCATACCAT  
TAATCAGAATTCTCCTATTTTTTCGAATCCACTATTTCTTCCAAAGCGGCAAAACCCAT  
45 ACCGTCCGCAAAGCGGAAACGGTCAAACAGATTGCCGCCGCATCCGCCCGAAACACCTG

ACGCTCGAACAGGTTGCCGATGCGCTGCTGAAGGCAAACCCAAATGTTTCCGCACACGGC  
AGACTGCGTGCGGGCAGCCTGCTTCACATTCCGAATCTGAACAGGATCAAAGCGGAAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 573>:

5 **GNMGU42TR gnm\_573**

CGTTGTTTCGGTTTCGGTTTTTCGTCATACCAAATTCCTTATTTCTTCTGTCTGAGATTTATG  
AATTATTTGTGCAGCCCGCATTCTTTGCTGTTTCTGCCTTCCCACCACCACCGCCCGGAG  
CGGATGTCTTCGCCCCGCTTGACGGGGCGGATGCAGGGGTGCGAGCCTATGCTGGGAAAT  
CCTTGACGGTACAAATCGCTGTGAGGCACATTGTGGAGAGGATGTATGCCACACGTCG  
10 TGTTCCGACTAGTCGAAAATCGGGTTGTATTTGCCGATGCCCGTCCGGCATCGTATTTCG  
GCATACAGCAGTTCCGTGCGTGTGGCGGATTGTTGCGGGCGTTGCCCGTAAGCCACGCG  
TCCGCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 574>:

15 **gnm\_574**

TGTCGCGCTGACGCGTGCCGAGGAACAGCTCAACATCtAtTcSGCgTaCTcCCAAkACs  
GCaAAAACAACCCCCcGCCTACwTGATTGAAGGCTCGccAgaCaTsCGCGGGAATGACGG  
CATTTCTGCGCAATCGGATTATTTCAAACCAAAGCGCGTGGTTGCGTTTGCCGCGCC  
GAAGGATAGTGTATTTGCCGAAACGTTTGTGTTTCGCCGTTTCAGCAGGCAGGCATCGTCGG  
20 GCGTTTCGGCGGCGTGGTTGGGGTTGTTGGCTTCGGCAGGTTTGCCGTTGAGCAAAACCG  
CTTTGCTGTTCAAAAGCCGCGCGCTTCTTTATTGGAGGATGCCAAACCGGTTTTTACCA  
AGGCTTCGACGACATTGATGCCGTCTGAACTTCAAATGCAGGCAGGCCCTCGAGGGCGA  
GCTGCTCGAAGTCGCTTTCGGTCAGGCTGCTTGGTCTTCGGCAAACAGGCTTTCGGAAA  
TGCGTTGCGCGGCGGCAAGGGCTTCTTCGCCGTGAATCAGGCGGGTCATTTCTTCGGCGA  
25 GGATGCGTTGCGCTTCGGGCTTGCTGCCGCTTGCCCTTGCTTTGGCTTCGATGGCATCGA  
TTTCTTCGATGGACAGGAAGGTAAAGTATTTTCAAGAAATTTATACACATCGGCATCGGCGA  
CTTTCAGCCAGAATTGGTAGAACTGATArGGCGAGGTTTTTTTTTCGCGTTCAGCCATAACCG  
CGCCGCTTCGGTTTTGCCGAATTTGGTACCGTCTGATTTGGTTACCAAAGGCAGGGTCA  
GACCGAATACTTGTTTTTTGGTGCAGGCGGCGGGTCAGGTCGATACCGSCGGTGATATTGC  
30 CTCATTGGTCGGAGCCGCCGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 575>:

**gnm\_575**

TACCGCGCACGGGCGTTTGAAATAGAAACCGATCAAGAGATACGACACCAAGCCCACCGC  
35 TTCCCAACCGAAGAAGAGCTGAATGAAGTTGTTGCTCATAATCAGCATCAACATACTGAA  
TGTAACAAAGAAATATAGCTGAAGAAGCGTTGGTAGCCGACTTTTTCATCGTGATATA  
GCCGATGGTATAGATATGCACCATCAACGACACGCCCCGTTACCACGACCATCATCATCGC  
CGTCATCGTATCGACCAAGAAGCCGACGGAGAAATCCAAGCCGCCCATTTGTCAGCCAGGT  
ATAGACATTCTCGTCAAACCTTGGCGCGGCTGCCGTCAATAAAGCCCCACAGCACATAAGC  
40 CGACAGCACGGCGGACACCGCCACGCCGAGTATCGTAACCGTATGCGCACCGGCACGTCC  
GATTTTGTTCGCGAACAACCCGCAATCAGCGAGCCTGCCAACGGAACAAGGGCAATTAT  
CAAATATAAAGTCATATCGTTTCAATTTGATTGAATCCGATTGATTTAAAAATCTATGTTTG  
TTTCGTACAAAATTACTTCGGAAAAACAAATCCAACACGCTCCAATCGTTTGCGTGCCAC  
AGCTAATTGCTCTTCAGTAAATAAATCACACCACGGCTTTTGTAAACACAGATATTCCAT  
45 ACTGTATTTACCGTCATTTCGGGACATTTCGCCCTGCTCGGCAAACCTTTGTGCGACC  
TGCCAAAACCAAGCCAAAGCACTCGCCCCGATAGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 576>:

**GNMHA81TRB gnm\_576**

5 AGAATACGCGCGGGTCAGAACACGCCGACCACCGTCCGGGTTTTGTCGTTTTGAAATATT  
CCTCTAAATACGGCAGGCGGTTTTTATCGACGGACAAACCGGTTTTTCACGCCCAGTTTGC  
TCAAGGTGTCGAGCATACCCAAATCGTAAACGGCGATGCGTTTCGGGGTTTTGCGGTATTT  
GAACGTCGCCGCGCGGGTTTTGACGGTAACGGACGCGCCTTCGGTTTGTGCGGCGGAAA  
CCGCCTGTTCTTTGGCTTGTGGGGCAGAGTCGGAATTTGCGGCGAACACGCGCCCAAAG  
10 CGAGGGCGGTGCATACGGCTAAAGCAGTCAAACGTAACATACGTGTCTCCAAAATGGGGG  
ATATTGGGGCAAAGCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 577>:

**GNMHC73TF gnm\_577**

15 TACTCTAGAAGGATCCCCGGCTAAAGAACTCGGCTACGCCTCCGACCTCGACCTCGTCT  
ATCTCTACGACGACCCCCACCCGACGCAGGCGACGTGTACAGCCGCCTCGCCCGCCGCC  
TGACCAACTGGCTTTCCGCCGCCACTGGCGCAGGCAGCCTCTACGAAACCGACCTGCGCC  
TGCGCCCTAATGGCGACGCCGGTTTCTCGCCACAGCATCGCCGCCTTTGAAACATACT  
AGCGCGAAAACGCCTGGACGTGGGAACACCACTCGCTTACCCGCGCCCGCTTCATCTGCG  
GCACGTCCGAGATTACAGCGGCCCTTCGACCGCATCCGCACCGAAATCCTCACCGCCGAAC  
20 GCGACCAAACCGCCTTGGCAGGCGAAATCATCGAAATGCGCGAAAAACATGTTCCCCACC  
CACCCGCCTGCCGACAGCAACGTCAAATACGCGCGCGGTGGCGTGGCCGATGTCGACTTT  
ATCGTCCACTATCTGACACTTGCCCATGCCGACAGTATCCGCAACTCTTGACAACATAC  
GGTACCATCGCCCTCTTAAACATCTCCGCCGACTGCGGTTTGATTGACAAAACCTCGCC  
GGCCACAGCCGCACCGCCTATCGCTTCTACCGCCG  
25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 578>:

**GNMHF24TR gnm\_578**

30 AATTCCAGCTCGGTAGCATTACGAATTCGAGCTCGGTACCCAGCACAACCCCTTACATGT  
ACCTTGTGTGGTGTCAATTGGATCCTAGCAAGAAAGGTATCCATTTGTTCCCCACAAAATC  
TTTATCATGCACGATTGAGTAGGATCCGCTGTTATAAGTTTGGCGTCTGCACCCGTATA  
GGTATAGCCGTTTTTCTGTAAACATCGGCGTAATCATTCTGCACATTTGTGGCTGTACC  
ATAGAAACGTGCTTTTCTGATTGGGGCAATGCCATTTTGTGTTTGGTTTACCCAATC  
TTTTAAGGAAACGCTTGCTGTAATCCCCACGACTGTGATTACTGGTATCAACCGACCA  
GCCGTTACCCATTTTTTGAACCTCTCGATAAATATCTTGATTGAGTTTTTCTGAATTGGT  
35 TTTGAGTAAATAGCCTTGGCACACTTTATTATTTAATTGGTCGTAACCGACATACATCAG  
TTCAGAAACAAGACTTGCACCGAGCCATAAAAAATCTTTATTTTGTATTAGAAATCAGA  
TTTATATTTCCCTGTTGGAGGATTCATGACTGCAATAAGCACACTACCGTTTGTACTAAT  
ACGATGTTGTTTTGCTGCGTTG

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 579>:

**GNMHF55TR gnm\_579**

GTACTATCCGTACTGTCTGCGGTTCCGCCCTTGTCTGATTTTTGCTGATTCACTATAT  
CGACATCGCCAAACGAGACTTCGTTCATCGCCGTTTCGTCTTTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 580>:

**gnm\_580**

```
5 AATAGATTAAGATATAACTATTAAATATTTTATAGATAGGATTATCGGAATTAAAGTCTT
TTATACCCAGTCGTCCGATGCGGTTTTATAGCGTATTGTTGCTATATGTTTCGTTATGTTAT
ATAACGGTTGCATCAAAATTTACGCCACAGGCTTTCCCGACGGTTTGAAAGTTTGATTT
TCGATAACTTGGAGACTTAAACAATGCCTACCCAATCAAAACATGCGTCTATCAATATCG
GTCTGATACAGGCAAGGGAAGCCCTGATGACCCAATTAGGCCTATTCTGAATCAGGCGA
ATATTACCGATCAGCAATGGCGGATTATCCGTCTTTTGGCGGAAAACGGCACGCTGGACT
10 TTCAAGATTTGGCGAATCAGGCGTGCAATTTTGCGCCCCAGCCTGACCGGTATCCTGACCC
GCCTTGAAAAAGCGGGTTTGGTTGTCCGCCTGAAACCTTCCAACGACCAACGACGTGTTT
TTCTGAAGCTGACTGCCGAGGGCGAGAAGCTGTATGAGGAAATCGGCGAAGAAGTGGACG
AACGCTACGACGCTATCGAGGAAGTGTCTGGGCCGCGAGAAAATGCTGCTGCTTAAAGACC
TGTTGGCAGAACTTGCCAAAATCGAGGATGCGTTGAACTCGTAATACGCCGTAACGCGCG
15 GAAACGTCCGACCGACGGCTTTTGAATCAAAACTGCTGCACATGGGGGATGCCTTGTGT
GCAGCATTCTTATATAGGGGACAGTTTAAAGGGGAAAATGGCGGATTTGCAGAAAAAT
TTCAAACCTCGTTCCGTGATGCGATGGCATCTTGCSCGGCAGGCGTTCATGTCATCACGA
CAGACGGTGCGGCAGGGCGTTACGGCATTACAATGACGGCGGTGCGGCCGGTTACCGACG
AGCCGCCGACCGTGATGCTGTGCATCAACCGGAGTGCGCGAATCATTCCGATCCTGTCCG
20 AAAACGGCAGCCTCTGCATCAATACGCTGGCGGACGAACATCAGGATGTTGCCGAACATT
TTGCCGGGCTGACCGGCCCTGTGCCCCGAAGAGCGGTTTGCTTACCACATCTGGCATCGCG
GCAAAACGGGACAACCTTGAAATAGAGGGCGCGTTGGCGCACCTGCACGGGCATATTGTGCG
GCAAACATGAAATCGGCACGCATTTTGTGTTTTACGTACGGCTCGACGAAATCAAAAAC
GCGGGTGCAAACGCCCGCGCTGCTGTATTTAGACGGCAGTTTAGATTTTTAGACTGAT
25 ATTCGGACAGATATATGAAAGCGATGATACTGGCGGCAGGACGCGGCGAGCGTATGCGCC
CTTTGACCGATACCACTCCGAAGCGCGTGTCTGATGTGGCGGGTAAGCCTCTAATCGGTT
GGCACCTATGCCGTCTGAAGCAGGCGGGGTTTACCGAAATCGTCATCAACCACGCTTGGC
TGGGTGCGGCAGATAGAAGATGCTTTGGGCGACGGCTCGGCTTATGGCGTGAACATCGCCT
ATTCGCCCCGAACCCGACGGCGGTTTGGAACGGCAGGCGGCATCGCGCAGGCATTGCCGC
30 TGTGGGTGGGCGAGCCGTTTTTGGTGGTCAACGGCGACGTGCTGACCGACATCGATTTTA
CCGCCGCGTTTTAGACGGCATCGTCCCTGCCGGAACATATTTCCGCCCATCTGTGGCTGG
TGAAAAATCCGCCGCACAACCCGACGGCGATTTTTCCCTGCTGCCCGACAGCAGCGTGC
GGCCGGAAGTAAATGGCGGCAACGGATTGACATTACGCGGCGTGGGTATTTACCGTCCTG
AAATGTTTGACGGAATCGAAGCGGGCAGTGTGGCGAAACTCGCGCCCGTATTGCGTGGCG
35 AAATGCGGCAAAACCGCGTGAGCGGTGAGAAGCATACGGGCTTGTGGCTGGATGTCGGCA
CGGTATGCCGTCTGAAAGAGGCTCAAGCCCTTGACGGGGCTTGGAAGTAAAAACCCGGTT
TCAGACGGTATGGCGGATTCCGGTTTAACTTTCAACGCCAGCACCAACACGCCCGCGGTT
ACCAGCCCCAAGCCTATCCATTCTGCGTGTTCGGGCGTTCGTCCAAGAAAACACCGCC
ATCAGCGCGACCAAGACCAGGCTGAATTTGTGATGGGGGCGACTTGCAGGGCGTTGCC
40
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 581>:

**GNMH103TRB gnm\_581**

```
45 CCCACAGGAAAAACGGTCAATGCTTTCAGCGGGATTTTTTTGGGGAAATTCGTCATGTGCG
CTGTGCGGATAAGGTTTTTTATTTCTGCTAAATACTGCGCCGCCTCCAACAATCCTTTCCCT
CTCCCTCCTCCGGCTGGTGCGCCTTTGTGAATATGCTGTCTGAACTCGGGGACTCAGAC
GGCATTTTGTTTGCCGCCATCAGTCGGCAACTGTTTTTTCATCCTCTCTCGGCGTTCTT
GGGACTCAACAGATAAAGTGGCTGTGCGGCGTGCCAGCAGCCGCTTCAAACCGATAGGCT
CTCCCGTATCGGCACAGAATCCATAATCCCTTCATCAATATTGCGGATGGTGCCTGTGA
50 TTTTACTGAGAAGTTTTCGTTCCCGATCGCGGGTACGGAGTTCCAATGCGTACTCTTCTT
CCTGTGTGGCACGGTCGGCAGGATCGGAGGCTGATTGCTGTTCTTGGAGATGCCCTGTGCG
```

TAGCGGAAGCATTTTCGATGAGTTCGTCTTGCATTTTACTAGCAATTCGCGGAAAAAAG  
CTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 582>:

5 **GNMHL46TF gnm\_582**

AAAGCTGGCTTGCCCGACACTCAGACGGTCTCCCCGCCGGCATTTCACGCCGCAACCCT  
ACGGGCGCAAAAGCCCGAATCAACGCCAAATAACCGCCAGCGTAACCCGCGCCGGCGTA  
TTGGC

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 583>:

**GNMHN01TF gnm\_583**

CAAAATACCCTTATAATGAGCTTTATGTAGCCAATCCTAAATCGGGGACGAGTAGTTTGG  
TGCGAAAACAAAACGGGTAAACAACCGCCGCTGCCGCGTATATGCTGGCGCACGGAGT  
CGGCGTGACAGCTGTCCCATCTTACCGCCCAACCGGGGATGGCAATTTTCGGTCCGCGT  
15 GGAACATTACCGCCAACGCTACCGCGAACAGGATAnGGCGGAATACAATAACGGCAGGCA  
AGACGGGTTTTTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 584>:

**gnm\_584**

20 TAAATTTGTTGTTGTCCGATCCGTTATTGTTTGTCTGACTTGTATTTTTTCCGTGAGT  
CTCGCCCGTAAGGCGGAAGTGGCGGGCAATGCGTGGCGGAATGTGGGTAAAGGCGGCATT  
TTGATTTGTCGGAATGCTTGAGAACCCTCTCTTTAAACACCCTTGGATTCGGATTTCA  
AGTGCAACACTAGTGTATTAGTGCTTGGAAACAGATTCAAGAATAAAACACTTGGCGTTTC  
GTAGCCAAGTGTTTTCTTGGTCSGTGGTTCAACTCATCTTGAACCCTGCGTATCTCCCG  
25 ATCACTGATGTTACGGAAATCGGTTTGTGGGGAAGTATTGCCGGATGAGTCCGTTGGT  
GTTCTCATTACGCCCTTTCTCCCAAGAATGGTAAGGACGACAAAAATAAGTCTCCGCTTT  
CAATGCTTTGGTTATTTGGTGTGTTGGTAGAACTCTTTGCCGTTATCCATGGTAATGGT  
GTGCACCCTGTCTTTATGTGCCTTTAATGCCCTAACAGCTGCCCGGGCAGTGTCTTCGGC  
TTTGAGGCTATCCAATTTGCAGATGATGGTGTAGCGGGTAACGCGTTCGACCAAGGTCAA  
30 TAATGCGCTTTTCTGTCTTTGCCGACAATGGTGTGCGCTTCCAATCGCCGATACGGGA  
TTTCTGGTCGACGATAGCGGGTCGGTTTTCTATGCCGACACGGTTGGGTACTTTGCCTCT  
GGTCCATGTGCTGCCGTAGCGTTTGCGGTAGGGTTTGCTGCATATTCTGAGATGTTGCCA  
CAACGTGCTGCCGTTGCTTTTGTCTTGCGAAGGTAGCGGTAAATGGTGCTGTGGTGGAG  
CGTGATCTGGTGGTCTTTGCACAGGTAGGCGCATACTTGTTCCGGGACTGAGTTTGCGGCG  
35 GATAAGGGGGTCGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 585>:

**GNMHT04TF gnm\_585**

40 TATTTCCGGCGTGATGGAAATCCAGTCGTCCCGATGGCATGAACACGCCTTTCCGCTTAC  
GCGATTTGAGCAGGTCTTCGGTGGCGGCAGAGCCGATCAGGACGCGCCCTTTGCCACGG  
GCTGTTTGGTTGCCTTGCTGTACACGGTTACGGTGTCCATAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 586>:

**GNMHV42F gnm\_586**

5 GCCATTTTGTGGCATTGTTTTGCGTATACCGTGCAAGATAGCCATAGGGGATAACCATT  
TGGTGCCCTGAAAATCAAATGTAACCGTATGTTCAAATCCTGTCATTGGCTCGGGATTGT  
TGAAACTGGTTTGTTCATTAAAGGGTCACATGAGGGCAGTAAACACTCCCCATTAA  
CCAAATTAAGTTGATAAATGGGAATAGCCTATGGGCCCTAATTTCAAGCCTAGGAAT  
TAGGTAAAGGATATATTCCTGGGAGATACCAACTCCTTAGGTAAAAATAATTTACCAACC  
10 TTTGGCACCTAGGGATAAATTCCCATACCTAACTAAACGGGGGGAAATATATTTATCCC  
AGGTGGAGGGGAACCTTTTCCCGGTTCCGGCAGGATAGGTACGGGGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 587>:

**GNMHY50TR gnm\_587**

15 CTGCCGAAGCCGTCCGCCTGAACCGCTGACACACGGCGCGCTGGACGTAACCGTCGGCC  
CCTTGCTCAACCTTTGGGGATTGCGCCCCGACAAATCCGTTACCCGTGAACCGTCGCCGG  
AAACAGGAATTGGTCAATAGTCACTTGCGCGCCGTTGGCGAAGTCACCGAATTGAGCTTC  
CCAAATGGTCACTTTGTACGTGCGGAGCAAGCAAAGCCGTAATCGAACGCCATCACGGC  
TTCTTCGTTCAAAATGGAGTCGATAACCAGGAACCTCGCCCATGCCTTCGCCCATATGGCG  
20 CAGAGGAACATAAGTATCGTCGTCCCAATTTTCGCGGTTTGTATCGTGCAATAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 588>:

**GNMHY77TR gnm\_588**

25 CAATGCATTGGGCGGCGGTGTGAATTACCAAACGCTGCAAGGCCGTGATTTGCTGTTGGA  
CGACAGGCAATTGCGCGTGATGATGAAAAACGTTACAGCACGCGTAACCGTGAAATGGAC  
AAATACTCTCGGTTTCGACATAAACATTCAATAATAAAACAAGATCAATAATAAAAAAA  
ATAATGAAATATGAAGGATAATAGGAGGGTTAAGTTATTTAATGGGACTTGTCTCTAT  
GAATCATAAGACACCAAATAATCCATAGTACGTTTAGCAnATAAAACTACCGATGCCTA  
ACCTCTTTTTCTCAGAACCTATTATCATTAGAATTCTAAGTGAAAAATAGAATTAAAAA  
ATTTTTTTCTTCGCTCTGTCGTTAATGTATCCTTAGTTTTCCCTAAAAAAATATAAACA  
30 TATATATACTGCACAATATTGGTAATAAATAAATTAAGCGAnAGGTAATTAAATTGAT  
AATTGTAAATTATATAATAACAACATACGAAGAAAAATATTATAGATGATTTGCTATA  
CGAATAAAAAAATATCCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 589>:

35 **GNMHY94TR gnm\_589**

GCGTGTGGGACGGCAAAGCCTACGACGACAACAGCAGTTCCGCGACCGGCGGCAGGGTTC  
AAAACATTTACGGCGCCGGCAGGCTGCTACGTTTTCAGCTACGTTTCTTTGACGCA  
AGGTTTGATTGATTGGAAGAAAGGTCTCCCGATTGCCGACGATCGTTTGTAGGCGGCGT  
GGCCGGTGCAATTATCGGTCAGCTTGGTTTCCAAAGATATTCTGCTGGCGGTCGTGCCGGT  
40 TTTGTTGATATTTGTCGCACTGTATTTTGTGTTTTCGCCCAAGCTCGACGGCAGTAAGGA  
AGGCAAAGCCAGAATGTCTTTTTTCTGTTTCGGGCTGACGGTCGCACCGCTTTTGGGTTT  
TTACGACGGTGTGTTCCGACCGGGTGTCCGGCTCGTTTTTCTGATTGCCTTTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 590>:

**GNMIA39TR gnm\_590**

5 TACCTGCGCGCGTTTTTCGCAGGCGGAAGGCAATGTGCGCGGCGGCGAGGTCATCGGTTTT  
GTGCGTTTCGACCGGGCGTTTCGACCGGGCCGCACCTGCATTACGAGGCGCGCATCAACGGG  
CAGCCCGTCAATCCTGTTTCGGTCGCATTGCCGACACCGGAATTGACGCGAGGCGGACAAG  
GCGGCGTTTCCGCGCAGAAACAGAAGGCGGACGCGCTGCTTGCGCGCTTGCGCGGCATA  
CCGGTTACCGTGTCGCAATCGGATTGAAGTTTGAACCGGCGACGAAAACAATGCCGTCTG  
10 ACGACGTGTATGGCATAGCTGACACGCTGAGCCTAAGTGATACCGATAACCGAGATTTTAA  
TTTACATCTTTATAGGCGAGATCCACAGATTGGATACCCAAATTTTCAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 591>:

**GNMIA50TF gnm\_591**

15 CCGCAGGTTCTGGCAAAAACCGAAAACTTTCCAAGGCGGGCTCGTTGGGCAAATCGGAA  
ATGGAACGGTATCAAAATTGGGCATACCGCCGCCAGCTGGCGGATGCTGCCGATGCCGCC  
GCTTAGAAAACCTGCCTGAAGCGGATTCCCGACAGCCTCAAAAACGGGGAATTGAGCGTA  
TCGGATGCCGAAAAGCACGAACGCTTGGGACTGAATGCCGACGCGGCCAAATGGGTCAA  
CAGCATTAT

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 592>:

**GNMIB26TR gnm\_592**

CTCGGTACCTTCGTAATATTATGAGCTATGAATTCGACCTCGGTACCCTGTGCACTTTCA  
AAGTATACAACCAAATAAATTAATAAAGGCACCAAATACAATAAACAACGCCGTAAGC  
ATGCTCATAGAACCTTGGTTCGTCAGTGAACAGCTTTGCAATACCCGAAGGAATACCT  
25 GAAGCAATACCTGCCGTAATGATTAAAGAAATACCGTTCCCGATAACCCCTTTCAGTAATT  
TGCTCCCCAAGCCACATAAGAAACATGGTTCCCGTTACCAAGAACTACCGTGGAAACA  
TGAAACTCAAATGAACTTGTTACAACAATTCCTTGCTGAAATACGAAAGATGCAACACCT  
AGACTTTGAAGAATTGCTAACAAAACAGTACCATACCTAGTATATTTTCGTAATTACCTTT  
CTACCAGCCTTCCCTTCTTTATTTAAAGCCTTCAATGATGGCAAAATTTCAGAAGCGAGC  
30 TGTACAATAATAGAAGCTGAAATATATGGCATAATTCCTATTGCAAATATACTAAAGCGC  
TCTAACGACCCACCGGAAAACATATTCAATATTCAGGATGCCGTTTCCAGCGCTTTTCG  
TATAATTTAGCTAAAGCAACAGCATCAACTCCAGGTACGGGTATATGGGCACCAATTCGA  
AAAAACAATC

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 593>:

**GNMIE10TR gnm\_593**

AAAAAGTGGTTTCAGACTAAGAATGACGCAATCGGCATTTAGGCCGTCTGAAATCAGAAG  
TACCGTTTCCCAATATCGAAAATCCGCCATGCGGCTAAAAATACTTCCCTCATGGAGCAG  
AAATGACTTTGTTGAGCTTATTTAATCCGTTGCAAATGCGGCATGGAACAAGAGTTTG  
40 ATGCCATTAAATCGGTATTGCCTCTCCCGATACCATCCGCTCATGGTCTTATGGCGAAG  
TCAAAAGACCTGAATCCATCAACTACCGTACGTTCAAACCTGAGCGTGACAGTTTGATCT  
GTGCCAAAATCTTTGGCCCGGTCAAAGACT



The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 594>:

**GNMIF19TF gnm\_594**

```

5  ACGGCTTGTTTCATGGTTCTGCCTTTCAATGATTGTTTTGAAAGCCTGATTTTGACACCAT
   AACTTCATGCGCTCAATTCTTAAACAGAACCGCCCCGATTAAATACGGGTACGGAAACGCC
   GAGATAACAATAAGAATCCATCATTTCAAAACCTTTTTTCAGCAGGGACACATAGTAAACG
   GACGCGAGGATGCCGAATACTATCCAGCCTGTTTCAAGACCGCTTGCACGTTGTCCTTC
   GGACTGCATTCCGCCAATAAAAGCCTTAGCGGCTGACCGTCCGACATCTTCCACAGGCTG
10  CCGTTATATTCCGGCCTGACAATCTGTCCGTTTTCTTTGATTCTTGGTGACTACCAAGCT
   GAAATACAGGTTTTTCAGCCTGGTGCTTCTCAAGACATTTATTTCCGACTTGGTACAACAT
   GCCGTCTTACTTCACCACTCTCTTAACGATGGGAACACAAAAAGC

```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 595>:

**GNMIF67TR gnm\_595**

```

15  AACTTGTATACAAAACCTACAATATTGTCAATATCGGCAATTCCCCCATCAAATCCGCC
   AAATCAAAAATATAAAAAGGGATGTCCTCGATGGGCATATCGCGTATTACTTGTTCATC
   CATAACTTGAATTCATTTAAATCAATAGACTGAGAGAATAAGCATTTAATTGCAAATCCT
   AAATCATCACTATCCTCTTTTATGATTTTCCACATAATTATCTTCCTTTGCCGTCAAACG
   CTCTTTTAGTTACCCGCTTTATATCAAAAATACCGTCTGAAAGACGAATATCGTTTCAGA
20  CGGCATTTTGACTGTTTAAAGCGGAGGAAGTTCTACAAACGGCAAGAAATGCTGAAATTT
   CTGAAACATTTCAAGATGTATCTCTAACGCTTTTACTGCTTTTTCTTTTGAAATACGCAG
   ATCATACACATCTATCCCCCTTAAAAACGCAATGTCCGGTCAAGGTATTTTTTTTCGATTT
   TGATAGTCTGCACATTGAAACAGAACCTACAGTATTGTCAATATCGGTAATTCCCCCATC
   AAAATCCGCCAAATC
25

```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 596>:

**GNMIG49TR gnm\_596**

```

   GGTCTTCGCCCTGGTTAACCTCATTAAGAGTCTCTnCAAAATGCTCCGGGCCTACCTAGTC
   AATCTAGTCACTCTCCGAGCCTCCGCGCTGCCAACCGTCGTGCAATCAGCAATACAAAT
30  ACTAAGCCCTCCTGGGCTGCTATCATTTCTAGCATTCAAACTCGCTGCTTTCAGGGGTACA
   TCCTTGTTAAAGGAGGTTATTAGTGTCAGGTTCAAATGGGTGTTCTCGTCAGCGGGGCC
   CTCTCCGAAACAACCTGGGCGGTAAACTTAAGGATTCAAGCCCTGGCCTATGGGTTCTTC
   ATCAAAGTCAGGAGTGCCGTCAAATGAGTACCTGGGCTACTCT

```

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 597>:

**gnm\_597**

```

   CTACTAACCACAATCCCATCCTTCCGTCTATTGGGGGTTCTATTCCAGGGTTATCTTCGA
   TTTCTCAGCGTAACCGCGCTTAGCCAGACGTGGTCCGAAACGACCAGACCAAGCGGCTC
   CTCCGAAGTCGCTTCTCTTCCCTCGCTTCAGCGGGCCAAGCGTCCTAAACGGCCAGGGCA
40  CGGCCGTGGGCGACCGTGTAACACTCCTACGGCTTAGCTGGGCGTCGTTATCGGCGACC
   AACTCCTAACTACCTGCGTCAGTAAAGTTGCAGGCGGCTTTAGTATCTTCTGCATAGTCG
   CTTTTAACCTAATAAGATATCTTCCGTACCCGCCATCGTCAcATCCTGGGCCCGGG
   CAATGCTGTCTCGAACGCACCTCTCGTCTATAAAAGTACATCCTTGGTCCTAGTCCGCGG

```

TAATATGGTCAGCCGTACTTTGGGTAGATGGGGTATCATAGTCTTTCCGGGCGGGCTTCT  
 CTTCCAACTAGAGGGGTATAACGCCTCATCATCTAAGTACCGGAAGTCCTACGGCTAC  
 GGGCATCCTCCTCTACAACCGCTGCAGCATCCGGCTTCTGTTCTATAGAGTAAATGGTAG  
 5 GTTCGTTAGCGGTACCTTCCCTGGCACCCACAGCTTCTCCGCGTCAACCGAAGCTTGGG  
 CTTCAATTAAGATTATACCTCTCCTGGTGGGCGTCCTGCTATTCAAAGACTGTACGGTCAT  
 TAAAGACCCCTGGTTCTCTGCTTGGGCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 598>:

**GNMIG51TR gnm\_598**

10 TCCTGTCTTATCCGTACCGGCACTTGCTTCTTTAACCTCTCCGAGTCAAACACTCCTGGG  
 CTTTCATCCGCAGCGGCTTCGGCAGGGGTTTCGACGGCTGCTTCCGGCATCCTCCTAG  
 GCATCCATCCACACTTGATTTCTGTTCTTCAGGGCTCTCCTCCTAGGTACCTGCTTCCGAA  
 GCGGGGCTCTCCTCCTCCCTACAAACCCTGGTAAGCTCTTTAACGTCCCAACCCACCTCC  
 GAAGTTGCTTCTTCACTCCGCTAGGGCTTAGAGGCTTCTTCAACCTCGGCCTCAGCTTTA  
 15 AAGTCTCGGAAGTTCTTTCAAATCTCTCTTCTCGTAACTACCAGGTTCAAGTCCGTCG  
 GGGCAAATCTCGGGGTACCCAAAAGCTCGGTAAATTTAAACTTGCTTTCTTCCCTAAGA  
 TCCTAGTCTTCTGGGCTTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 599>:

**GNMIG53TR gnm\_599**

20 AAGCACGGGGCTTGCCGGTTAAACGGTGTAAGGTTAGGAAGAGCCGGGGCGTCGGTCTT  
 AAAAGCGCGCTGCGCAGGCAGATCAAATCAACGGGTACTCAACTGAAAAGCCTGAAAGG  
 TCTCTATAGTGAAGATAGTAGACTGATCAGAATAAGTTCGAGAAAAAACTGCGTACCGGG  
 TATGGCGGTATCCAGAAGACCAAAGAAACGACTCCGGGCACGAGGTCCGATGCGAATTTCG  
 25 AGAAATTGGATTAGGGTCTGGTAAACATTCAAGATCCTCATGGGATTCTTACTATTCTC  
 ATTCTCGGGCTTGGGCTCGGCGTTCTTAAAGAATGGGTAGTGCTGGTGATGGTCTTAGT  
 AAATAGGGTGAAAGCGCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 600>:

**gnm\_600**

30 TCATTGCTACCTAGCTAACTGGCCTATGCCTTCGTGCGGGATAATCGTCGCATGCCcAAA  
 ATTTGCCTCGGATTTAATGGAAGTCTTGGCTACTATAGTTTTTGGGTCTTACTGCCTCGA  
 AGACTCAACACCTTTCTATTCACTCTTTGGTTAATACGGCTCTACTTGCAAGCCTCAAG  
 CCTCTTGACAGCTCCGAGGGGTGTTGGATCTAGTGCCTCCGAGGGTATATTCTAGAGCCG  
 35 CTATGTGTACGATAAGTGCTGTGCAGCTTCTAGACGGAACCTACTTTTCATATTTCTTAA  
 TATTTCTGCATCTCTTGCATCCCTGGCGTGCTGTTTCTAGTTCTGGATACATAACTGC  
 GCATTCGTGTTCCCACTGCTAGCGCGTACACCGGGGTATTTCGTAGTATTCAAATCTCTCA  
 CATCAAACCTTTGTCGAGATCTTGAGGGGGAGACCGGAAGCGTAGCAGAAGAAGCCGGG  
 TGGACATCGTACCGCCTATGGGGTCCCCAAAGCGCTCTCCAATTTTGAGGGCGGGAGGGG  
 40 GTGAAAGATAGGTAAaGAGCGAGTCTGTAGCACATAAGAATTTGcAGAAAGCTgGTAAG  
 AAGAGGCAAAAACCAACACGAGCACGAGGTAATAGGGTTCGCGTCTTTGGAGGTTTGGGG  
 GGCTCCTAGGGGCTTGGTTGCGGGGGCTGTATTTACAAATCTGCCGCAAACGAAAACAGC  
 TGCAACAGTACGCCCCGCTATCACGCCCGGATAGTCAATGCCAGTGTAACTCCGAACA  
 GTTGGCACACGGGGTCTTTTCAACAATCGGGGTAAAGCAGCACTATGGGGAAACGGTGCT  
 45 GAGCGCTCTCCGAGGAGTTTCGAGGCATCTTCCCTAACACTAATGTCCGTCTTCTAGAT  
 ATGAGGTGTACAAGCATGGCCGGCACGATGTATTACGTATACAAAACCTAGTGGATCCAGC

CTAGCAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 601>:

**GNMIG55TR gnm\_601**

5 TCGTTACTAACTTGGTCGTCGCTTACTCCTCTACGGGGGTTACTCAAAAGTTAAAGCTA  
CTCTCTATAGCTTCTGCGGCGTCCCTACTACCCGGGTCCAGATCGTTCTTAAAGTCTTCT  
CGATTACGTACAGGGTCTTCCTACAGCCCTCCGAGGTTTGCTTCTTTAGGGCGAATTCCG  
GTGCTTTTCATATTAGCATCAATAACCTCTACGGCGCCTGCAAAGGC GCCAGGGTCCGCC  
CAATCTCTTTGCGTTCTTCGTCTCTAGTTCTCATAACCGCAGCTTTCAAGTCAACTCCG  
10 GCAGCTATAGGGTTACAGCTAAATTCCTGCGGGGCTTGCTCTAAGCACTCTCTGCGTCC  
AATACTTCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 602>:

**GNMIG56TR gnm\_602**

15 GGTGCGTTCCATGGTAAAACCTTCATAGAATCTAGAGGGGTAAATGCAAGGGGGTTACTC  
GGGTGGGAAGATCTGGCCGCGTCCCCCTAGGGGTTTTGGGGGGCGTCCGGGTAGCTCCT  
CCAACGTCAAGCTCGGTCTTTGCGAACTGCTCCTCCCTGCGAGATTCTCTAATTCCTA  
CCCGACCGCTGGCCAAACCGAGCAGGGTGCTGGGCTGGTCTCGTCTCGGGCGCTTAGTT  
AGGTGCGGACCGTTGTACAATTGGCCCAATATCTCCACACACTTACAACTGCAGCACGA  
20 ACCTAGACGCGGGTAGCCCGGTTTGAATCGAACGAGGGGGCTGTCTAGGGGCGCTTCT  
GGTGCTCCTAACTGTGGTGATCCAGGGGCTGGCCGACCGCCGCTAAGCCTCTGCACCGG  
TAACAGCTGCTGTGGCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 603>:

25 **GNMIG57TR gnm\_603**

GCGGCGGCTTCGATAATATTACTCAATTCTTGGTCAGAAGCCGGGGGCTTTCGAGACCGCG  
GCGGCTTCGCTACGGCTACGGCCTGCTTCTTGGGGGGCAGTACCTTCTTTCGCTTGCAA  
CGTTCGGATCCAACCACGACCTAAGAGTCCAGCGATTGGGTCGAGTCCTCCGAAACGTCT  
TCAATCCAAACCATCTCCCGTTCCGTAGCCTTGGAATTTCTAGTTACTACGTTTACTTCA  
30 ATGGCTGCGTTATCTTCATGCTATTACGCGTTGCACTTCGTGCTACTAATCGCCGATCTA  
CCGGCGTCGGCTGTAGTTATCCCGAGGGTGCTACTACTACACTTCTTCGCTTCCGGATCA  
GCCCCGCTCCAAACCGAGCGGTTCTAAGGGCAAGTCCCGGGCGATCCCGCAAATCCATCT  
GGCTGGTAGACCCGCTTCATACCTATTATAGCCTACGAAGGTTCTA

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 604>:

**GNMIG58TR gnm\_604**

GTCCGATTTCCTGGGGGGCCGGGGGCTATTGCTCCAGGTCAGGATCGTACCCGAAAGTC  
GCTTGGCGCTTAATTAGGGCCTCGGCCGAACGGGGGGGGTGGTCTAGTAAAGATGGTCA  
GAAAGGTTCTATTACGAGGGGCTCGGGGGGTGTCCCCGTCCGGATCTTCTCACGGGTC  
40 TTAGAAATGCTTTGGTCTAGTCATCGCGAGTATGGGTATATTAAACGGCTCCCTCAATA  
GAGTTAGTATTAGGGGCTGGGTCCGTACCTCTAATAAATTCGCAGTCATCAATATCTACC  
GTACGGCCGCTTTCAGCCTCTCCGCAAGTACTCTCCTCCTGATCCAACACGTTATCTTCA  
TCCATACATTGAAAAGTATGGTCGTCTGCTTCATTGCGGTCTCCAGGGGCCTAATCCTGG

TGGTCAGCGACGGTCCTAGTCGTTACTTTCCGGCGCTCTTCTAAAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 605>:

**GNMIG59TR gnm\_605**

5 GTTAGTTCGGGCTTCAGGGTCCCAAGGGTTAAAAGTGC GGCTCGGCTCTTACGGGTAAT  
GCTAAAGCTCTGCTCATTCGAGTCCGGACTTCCTGCGGGTCTAAGCTTCGGCAGCTGC  
TTCAGAAGGGTCCTCCCCAGGGGGGAGGCACGGGCCTCGAGGCGGTAAATGCTCTTAAT  
ACCCGCTCCTCTATCCTGGTCACCGTCCGAGGCTTCTTTCGCGTGGTGGTTATCATTCTG  
10 GTGAGAGCCCAAATCAATACATTCTTTCGCGTGGTAAGCCGTACAATATCGTTCTCAGAT  
ACTTTGGTCATTAAGATGGGATTTCGTTCCGACGGGTAATATGGCTACCATGGCG  
CTCATTCGATTCCGTGCAGATACCGTCTCCTAAGTCCGGTGGTGATTCTTCTAGTCCGG  
GCTCTTAATACCAAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 606>:

15 **GNMIG61TR gnm\_606**

CGGTGGCTAATAGACCACCGACGCCTCCTCCACCGACGTGAAAACGGTCACCCCTCATGGT  
GGTGGTCGTTAATCTCGGCTCGTTCATGCTCTTCTTCCTCCTAACGGGCGACTTCTTGGT  
GGTCATCAGCAGGGGTCCTTAGACTAGGTTCCCCCGGTCGACACTTACAACGTAGTCCT  
20 CACCAACACCTCGGCGTCTGGGCCGAGCTTCCCGGTCGGCTTCCGGGGCCTCCAGGG  
GGGCTTGAGTAGCTTCGCGCAGCAACCGCCATGGCTTAATCGGCCCCAGCTTCTACAGCAA  
CATCTCTAACC GGGAGTGAGCTTGGCCTCCGCCCCAAGTAGCCTATCATACTGGCCCC  
AAGGGGCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 607>:

25 **GNMIG62TR gnm\_607**

CGAAGGCTTGGGCCGATCAACATAAAACATCGAGGAAGACAATTGAGCCTGCTGATCCTC  
GGCATACGGTCAGGAGCTCTTGGAGCGTTCAGCATACTACAGGTTTTCAACGTAAACAAG  
GCAGCCAAACTTAAAGCGAGACCTGCCATCGTTCCGGGCCAAGGCC TAGAAACAACAT  
30 GCAAGAAAGGAACCGTGGGCCAGGCCAAGAAGGGGCGGGGAAAGACGGCTATAGGGCAGG  
CCAATCCTCCACAGGCGCGCCGTAAGAAACCGCAGCAGGGTACAAAGCCCCTGCAGGGGG  
TTTGGAGGTCTAAGGTAAAAGATAAACAACAAAGCCAGCTTAAAACTGCCAACACAGGG  
GAGTCGGCAAACGTCAGCTTAAGTTTCATAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 608>:

35 **GNMIG63TR gnm\_608**

GTTTTTCGTCCTTGGCTCTTCGAACATTACGCTAACTTGTAGTTTATTCTCTCTGAGGAC  
CAAAAAAGCTCAGCGTCAACTTTGCGGTCCATGGTTTGGTTGTCATTGTAGGGATTAAT  
TCTTCAAAGTTATTCTTAAAGGGTAATTTCTCTCAAAGTTACTGGGTATCTGCGGCGT  
TAGTAAATTCCTCCGGCGTTTCAACATGCTCTTGAGGCGTTCTAAGTCTCTATTATAA  
40 GATTAAGTGCCCTAAACACTACAGCAGCCAGCGCCAGCAAAGTCGTCAAAAACCTTAAAG  
TCTTAAAGTCTCTCTCTAACTTCCGGGGCAGCCCTCTCCTCGCCTCTCTTTGAAATT  
TAAACATCGCCACATCCGGGTCTAAGTAGTAAACTTCGTAACCTGGCCCCGAGCCAAAT  
TGCTCCTATCGGTCCGAGCTGTCAACAACGAGCCTCCAACA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 609>:

**GNMIG64TR gnm\_609**

5 TAGGGAAATACGAAAATTCCTTCCGGTGAAAAATCCGGGGCTTGCAGGGGCTTGAAAGCT  
TCTTCAGCCTCCTCCTAAGCTCGGTTCTTTGGTCTCTCTTTAAGTTCTTGCTTCTCTTG  
TTATTAGTATCTCTATCATCCCGGTCCGGTTTCAACTCTCTAATATCATATCTTTGGGCT  
TGGTCACGGTGGGGGTTATGGTTCTTAATATCGTGGGTCAACTGGTTGCTTAGGCTGCAT  
TGGGGGCCAGCTCTATCGGAAGTAGTCGGGCTCCAGATCCTGCTTAAGTCCTCTAAATCC  
10 GCCTCACCGTGGCCGGTACTCGGGCTACGCTTCTTAAATGGCTACTCTCCAAAGAAGCT  
TCGTCTTCCGCGGCGCGGGCGTTAGATATAAAAGAGCCTTCTGCCTGGTCTTCTTCAGCA  
CTTACTTCTCGGCCGGTACTGCGGTTAATATAGACTCCGTCTTCATGGGCCTCTCCTACA  
AAGTTATCTTTGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 610>:

15 **GNMIG65TR gnm\_610**

GTCCATCCCAAAAGGTGGTCTTGTCTTCTTACTAGTAGAGTCCGTACATTCGAGGGCA  
GCCTGGTTCGACCTAGAATTGAGCTTGGCCTGCTTCCATCAATATCTCTGTACAGCGTCCCA  
GCAGCTCTTTGGGTACTTTCAAAAACAGCTTCAGAGGCCTCCTCCGCCGCGCTCCTAGTA  
20 GATCTATAGACCGCGCCTCTGCAACGGCTCTCATCGCTTCCGTACTAATAAGGTCTTTA  
TAGTCTTCAGCGTGGGCCGCTGCTTCTGCCAACACTTCTACCTAATCTTTAGTTCGTTCC  
TCCGAAGCTGGGTGCTTTTCACTAAATCCTAGTTCTTACTCTTGCTGTTCTTCTAGTCA  
TCTATACCGATCATATCTCTTTTAGATGGTGCCTGCTGGCTCTCGTTAAGCGGGTCCCTC  
CTCTCGAAGGGGTAAGT

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 611>:

**GNMIG66TR gnm\_611**

AAGTTAAAAGTGGTAATAATTGGCCGGTGCTTAAAAGAGTTAATACGGGAAGTTCTAATC  
TATCCATATTCGTTCTTGTAGTAAATACTCCACTGTTCCAAGCCAAACTTACATCGGTTG  
TACCGGTTCTTATATTTTGGGTATCTACAGAGCTTAAGCTTGTGGTAGCCCAACCACTCC  
30 CTAAAATTAGTGGTTCTACTCATGGGAAGCCGTCCGAAAATTGGCGTTCTTCTCGCCT  
GCATTACTAAAAACATTATGGCGCCTCCTCCGGTGGTTAATATGGGTAATAAATGCGGCC  
TCCTGGCCATAGGTAGATGGGTTCTACCAGCAAGTACA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 612>:

35 **GNMIG67TR gnm\_612**

TTCATACGCAGATTTCGCGGTCCTAAATGTCGCGGCTCTACTCGCCAAAGCGGTCTGCCAG  
GCTAATACCCTGGGACAACCCAGATACTTGATCGGTAACCTAACGATTCTTTAAGCTACCC  
CTAGGCTTGCTGGGCGGAATCTTGCTAGTCATCTAACTCCGGGGCAAATTTACGGCTCTC  
CTATCCAGCCTCCTAATCGAGTTATTTCCCTTGCTATTAAGTATGATGATAGTAGAGGCA  
40 CATAGTCGCGTAGTTGGGCTGGGGAATACGAGTGTAAGAAAAAATCAGATGGGGGCGGG  
TGGGGGGAGGGGCAAGCATGCTCGGGGCAGCCGGGGAACAAAACCTTCGTGCAAACGTTA  
GAGTGCTTCAGGTAGGTCAAGTAAAGCGGGTACATCCTTGTAAGTCGGTCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 613>:

**gnm\_613**

5 AATGTAAAAAATTCAGGTTTCTGCAAAATACCAAGTTCCACGTGTACCCGGGCACAAAAA  
TTCGGGGGTTTCAGAACGGGTTTCGATTTCATACATTGACAGGTTTCTTGCTCTCCCAAGCA  
TCAGAGGGTACGGGGCGCGGGGGCAGGGGGGGCGGGGGCTCCCAAGCATCAGAAAGCATC  
AGAGAACGAGGGGGAGGGGAAGTTCTTAGAGGAGACGCCAGGAATAAAAATTACGATCCT  
CGGCTTGTCTTGGACTGTAAACACAATCAGGTGTGAACCGCTGCAACTATTAACGCAAGT  
10 CCGGTTTCGATGAGGGCTATGCGTGCTCCTGGTCTGCTTGGCGTTGCAGGGGGCGGAAGTT  
ATGAGAATCTATTTCTTAAATACTAGAAACCTATCCCTACTTTTCAGGGCCAGGCATTGA  
GGGTTTTTCATATTTGTCTTCTACTGTCTGGTCTTAACCTAACAGATCTTGGCCGATTGG  
GCTTGCTCTCGTCAACTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 614>:

15 **gnm\_614**

AAAAATGGGCAGTGTGGGCTTCGGGATTATCAGCCTAGTCGTGGGGAAGGTCCTACGATTG  
GCCAAATCCTTGCGCGCTGCAGTCGAGGGCAAACCGCTACTACTAGGGTCCTACCCCG  
TACCGTCGGCATCCTCATCATGGTCAGCGTCGCCCTGGGGTAAGGGCATCTAAGCTCAC  
20 CTCCTTCAGCTCCTTCAAATTCGGAAGTCTGATGGGAAGCTGTAGCGAGAGATGTTAACT  
GCGCAAATCAAAGGGTAAGATTGCGAGGCGAGGTGCAAAGAAACGGATAGGTTATGAGGA  
TAGTGAATGATGGCTTCTGGAGGGCAGAGACAGCAAGGGGATGCGGGCTATACAGGGTTA  
AAATGGGGATTAGTAAGAGGGCAAGGGAAAAGGGGAAGCAGCAGGGGCAGCAGGCTTAAT  
TGCTGGCGCTCGAACGACTAAAGAGTTAAGAGGGGTAGGATTGGGGGCGTAAAGAACGGG  
CACGGGAACATGGCTGCGAGAACATACAGAACTCGCCAGCGGGGGCATGGAAGAAGAGG  
25 GTGCGCCAGAATGGGCTGCGGGGTTGACGGCGTGTAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 615>:

**GNMIG70TR gnm\_615**

30 GTCCGATTTTCCCCAAAACGACGGCCTCAGGGTCTACCTGGTCGTTAACGTGGGCCTCA  
CGAGTAGTCTCTTTTGCGGCTTCACTCACCTGGTCAGCAGCGTCTCCTCTCCTAGACGGG  
TCAGTACCTCCGTTAGACTCCTGGTGATGGTCGTACAGATCTGGCTCATCGCTTCAGCA  
CCAGCCTGGCCCTAAGGGTCGTGCGGTCCTTGCTGCAATAAAGTTAGTCTTATTTAAG  
TCCTACCGCGTCGCTTCGTCTCAGCATTACCAGGGTACATCCTTTTCTTATTAGCGTCA  
35 GCTTCATTATCTTCAATATCTCCTCGGGCTCCTCCTCATCAACCTCGGCTTTCCATTCC  
GCAGGGGAGTCATGCCCCCAGCGGGTTCGCTTCGACCTCACCTCCTAATTCTTGCTC  
TCTTCTTCATCCGCAACATGGGCCGGATCTCCTCATCGAGCTCCTCCTAACGATCAGCG  
TCGGCTCGGTCTTGGGGCCGCGTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 616>:

40 **GNMIG71TR gnm\_616**

CCTGAAAGATGTAGTAGTCATTTCAGACGCAATTACGATTTCGCACCCAAACCTCAAAACAA  
TTTTCCACCCACGCAAATACAATTGCAAATTGCAGCTAGATAAATACGCCCACTCTTT  
GACGCCGCGCATGCTCGATTGGGGCGAGAAGCCGTAATCATGGATAGGTACGACTCACT

GGAATTCAGACCCACCTCGACCCAAATTCACGTGGAAGACCCCTCAGCACGGCTGCCCCG  
CGACATTTCAAATTCACGCAGTGAGTTAGCCTTACCGGCAACCGCTTCGAATACCGATGC  
CACCATTCAATTTATCTAGCGGCTAAAAGCTCCCCAGCACTGCGCCAGACCCGCAAACC  
TGAAATAAATGTCCACAGACTGCCGGTGTTCCTCAA

5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 617>:

**GNMIG73TR gnm\_617**

GGGCGCTCCAGGTAAAAGCAAATTTCCGGGGGGTCCATAGAGGGGGTGCATTCGAGGAAC  
TAGGCTTGAGTTTCTGGGCGCCGAGACGCCAGGAATAAAAAGTACCATAACCTCATCAAC  
10 TTCTACATACGATCCTAACCTCACCTAATCTGCGATGCCGGGGGCGGAAGTTATGAGAGA  
TCCTACCCACCTCCCTGCCGGGCGGGCCTGCCTCCTCCTCAGCGCTCCCGGCGCCTGCTG  
CTCTCTTTGCATGCTTAAATGCTTTTAATACTCGGAGCTCCTGGGCGGGAGGATATGCGG  
GGGGCTTCTACGAGGCCGCGGTCCCTCCTAGCAGGTCAGCGAGGCCGAGTTTCGTTGTGC  
TAAGTGCAGCAGCGGCCTCCGCGGTCTCCTACTTGCGGGCTTCCCTACATC

15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 618>:

**GNMIG74TF gnm\_618**

GGCTTGGGCTGATAGAGGGTGTGCAATGCGCCGAGTGCTGCATAACAGGCTGGAATGCTG  
TTGACAATTGACGCGGAAACCGTAAATATCCATAACCTCGGCAAAGCGCAGCTTTTTCGCC  
20 ATCATTTTCTGATGGATGCCGTACAGGTTTTTTTCCCTGCCTTTGATTTTGGCCTCTATA  
TTCGCGCCTACCAGCCGCTGGCCGAATGCGCGCAAGACTTTGCCGACAACGTACTGCCGG  
TTCTTCCGGCTCTTGTACATCGCTCTTTTTAAAGTCTCGTAACGGATGGGATGCAAGTTA  
TGGA

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 619>:

**GNMIG75TR gnm\_619**

TCCCTGGGCTATCGTACCTAGGCGAGGCCTCCGCTGCAGGGGGTGCGGCAAACAGAAAA  
AATCTCTTAATCTTGCAATTTGGGTTTGCGGTACATCCTAGAGCTTCGTGCAACTGGGGG  
CCACTAAATTCTAAGCAATTCGTTTTTAGAGGTTCTCTCCTTTTCGTAGCCTACATAGGCT  
30 TCTTGGTTCTTGCAATCAACACCAAACTAATCTTGCTGTCAGTTTCTTCGACCTCCTAG  
TAGTTGTGGTTCTTCTAATGGTTAAATAGTCAATAATGTAAATATGTATTCTTCAAAG  
TAAACTTTGCTCTATATTTCAATGTAGGAGTCTTCGTGAGTATCAAACCTCTACCCGCTA  
ATCGGGTAGTCAAACCTGGTATTTCTTGCTTTCTAAGCACGATCTGTCCTCACAGG

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 620>:

**GNMIG76TR gnm\_620**

AAACTACTTAATTAGCAAAGTAGTCTGTACCCTCAACCTGATATTACTAACTAAAATGCG  
TACTATCTACGTAGGGCTGCAAACTATGATTCTTCTGATTTTGCGAAAACACCGAGAA  
AAGTTCTGGGTATTTGACTTTCTCTTTGATCTCCCTGGGGGGCGTACGGGTTTCATGGGC  
40 TCCCACGCAGGCTTTCTTTACGTCTCTTAACCTGCAGGGGCGAGGGTTAATGTTCTTATA  
GACTTATTAAATGTACTCCTCGCGGTTAATACTCGCCTTCGTGGCTTCGTGGGTCCTCCA  
GGTCCCTCGATTCTCTCATTAGTAAGCTACTACCTCCCGTCTTAGCATGCTTGGGGTC  
ATAATTGGAAGGGTTCGACTTCAACCTCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 621>:

**GNMIG78TR gnm\_621**

5 GTCCGATTCCAAAGGGATTCTATCTTGCTTAGAATCCGCTCCGTCGCGATATTCATCAAC  
TTAGCTTTCTATAACCACTGCTGTGAGATACTTGAGTTTCGTCCTACTCCTCTATGCTTGG  
AGGGTTATCCTCACTCGTTACATTTTCGCTTCCAAGAGCAAAGTATCCCTAAGTTGCTTA  
CTAGGCAGGGGGTTACCTCCTACCTAAAAGGATCAGCAAAACGGGTAACTGCGAGTACC  
CGAAAAATCAAAGTTCTTTTCGTACCCGGGGAATTCTTCCTAATCATTTTAATCCTACCT  
10 GCATTCTCGATTAAGGTCTCTGGGGGTCTGTAACTTGGGCCAAGATCCTATCTGGGAGA  
TCCTCCGAGGTCATGAGCGTTCTAATCCATCCTCACTCTACCTCAAAGCCTACGGGACAA  
TTTCAAATTTCAAGGATTGGAGGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 622>:

**GNMIG79TR gnm\_622**

15 TTTCTTGCGTTTGTCGTCGGCTTCTTCTTGCTATTAGTCGTCAACTTTGTAATTGTAATT  
GTCCTGATGCCAGATGATGCATTCTTGGGGTCGTGCTTAATTTAATGATATTCTTATTA  
AACTTCTCGTTCTTACTCTAGTCTTCCTATTCGATGTCCTCGAAGTCGTCTGTCTGTC  
GTTTTGATGGTATTTTCGTGCGTCAAATTAAATGTGCCAGGCGTAGTCTTACGATTATTT  
20 GTGGGGGTAGCATTTCTATTGATAAAGATACGGGTGTTATTGGTGGTAGGATTAGGTAAC  
TTTGCATTACTTGTGTTTGTCTACCGGGCCATCGAGATCTTCATAGCTTTCGATCTAGTA  
GTCATATTAGGAGTCCTCTAGTTTGGCTTGCCCTCCTACGTACTGATTGCGCCTTACATG  
CCAAAGATTGTATCTGTCAATCTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 623>:

**GNMIG80TR gnm\_623**

GGGTCTTAGTTCCGGGGTTATTAACGTGGTCCCAGTCCTCATTAAAACGGGCTCCAGCCCT  
ACTATCTTTGCTACGATCGTCGGGGTAGTCATTATAAAAAGTGGCGTCCGAGCCGTCCTT  
ACCTGCGTCAACTCCTCTACAGACTCTACTATTATGGTATACCTCATAGTCCTCTCCAGC  
TGCATTAATGTCAACGTTAGAAGTCTATTCATGGCCGGCGTGGTCCGACCATAGGCTTCTG  
30 GGCATGGCCCTCTCGGTGGTTGTAGTCTCCCGGGCGACTCTGGTCCGAAATTATGGCCGCT  
CCTAAAGTCGTGCTTACGGTTCTTAAGGTCGTTCTCGTTAAAGTAGTCATTCTGCTTAAT  
AAGGTCGTGGGCGTTAGTCATGTCACTACTCGGGTCTCTATTCTCGTCCAGATGGTTACT  
AAGATGGTCTTCGTGCTGGTTCCGGGCATTACAAGTTACATCAGAGG

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 624>:

**GNMIG81TR gnm\_624**

ATCCACCTCCCTCACTTCTGCCTCAGCCGGGGCCTAAATGTCACTCTCGTCCCTCAGGGT  
AGCTCCATCTACTTCGCATGTTCAATTTTCCCCATCTGCCTTCCTCTAGGCCGTTTCGCG  
AGCTTTAAATTACGGGCCCCGCTTGAACCTCATAAAAATTCCTTTTAAACGGGCGTTC  
40 CCTTCCTCCTGAGCCGGGGGATCTTCGTCACTCGTGGGTGCGAGCCAGGGCCCCAGCG  
ATTAAATACCCGGAGACCTGGGTCTATTACAGGGGAGCGGTCTTGACAGGCCGGGCTCGTA  
GTCTTTCAATTGATGCTAATCCAGAAATTGGCCGTACGGGCTTCGTCCGCGACACCAATA  
CCTCGGCTAGCACCAGCGGAAGCAACATAGCGGCATTGGCGCTCATCCnCCACATAGTCC



The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 625>:

**GNMIG83TR gnm\_625**

```
5  CCTCCTCTCCTCGGCGGGCGTACTTACTTTATGGGCGTGAGGCTTAGGAACAAAGGCCA
   ACAACACTGGCTTCGTGTGGCGGGCATTCCACTACGAATCAGAGGAGGATCATTACCT
   CCCCCAATCGAGTCGGCTATACCTCTCGAACCGAGGCCAACACCTCCACTGGAGTACCTA
   GGGCCTAAAGCAACAATAAAATCACTGCCACCCGCTCGGTAAATGTCCCTGCAGGGGGAT
   CCGGCTCTTCGATTGCTGCTTCAAATGCAGGCGGGTCGGCTCTTCGATGCTATTCAAAG
10  CTTGGGCAGCGGCCAACACAAGGATATCTAGATGGGCATTACGTCTGTAAATCTCCCA
   TCGGCAGCTCAGGAGTCGGCTTCAATTCGGGTAACACTTCCCTAGGCGGATTCAATTTGG
   CGAGCATCAATTCGGGGTTCGAGGCGTTTCAACCCTAGGTAGGGCACC
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 626>:

**GNMIG85TR gnm\_626**

```
15  CTGGGCAGGTGCAAAAGATCATGCTATCCTCGGCCCAACTGCCAGCGGCAATACTTTCAA
   TAGACATACGCTTAACATCATTAGGAACTTCAGCTTCTTAAGATTATTTAACTTGCTGC
   TAATTAGATCCGTACTACGCTCTTTCTGACGTTCTTAATAAGCTTCATTACTCGAGAACG
   TACACTTAAATTTGCAATAGAAATCATCCATACTATAAATCTTTCTCTTGGCTTTCTTGG
20  GGGCGTCTTCATTATAAGATGCCAATAAGTCCTAATACCCAGATAGATACCTCCGAAA
   ATGTAACCTTTAAATTACTCACAAAAATCTTAAACAGGCCTCGGCACTCGAGTTAACA
   TACTGGCAAATCCTGCGTCT
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 627>:

**GNMIG86TR gnm\_627**

```
25  AACAGAGAGGGTTACACACATCCTGGCTAAGTATACACCTAGGTCGGTTCGGGATAAGAG
   CTCAGCATCGATGATTGCCGCTAAGAGGATGACTTAAAGGATTAAAGCTGAAGAAGCTAT
   GAGAATTACTGACGGACGAAGAGGTAGGATCGGGTCACAGAGTGGGTGTAGGTGGGCTAC
   AAATGAAAGGACTAATTAGAGGGTTAAAGGTGCTGAATCTCCAGCACTCGCTCT
```

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 628>:

**GNMIG87TR gnm\_628**

```
35  TCTTCTGGGTCTCCGAGGCCAACCAGAAAGGTCAGACCCGCCTGCTTGGGCGTTCTCGAGG
   TTCCAAGCCGCATATGGCCATCCCAACCCGGATTTCGGGTCTCTCCCCTAATTGGCAGAT
   TCTTGGTCCCTACTTTCCGTACCCCTCAGGGTCGTAAACTTGGGCATATGGCTCCGAAGTA
   CTGCGGTGGGGTATGGGGCGGCAGCAGATCTACCTGCGAGCTCGGGGTACTTACTTGG
   GCCTCGGGTCTCTATTACGATCTTATCCGTGGGTAAAAGAGTCATTGTCATTAGGGGCT
   CTCGCCATAAATTCCTTACCAACCTAAGCAGAATGAATCTTAATATTCTCTCGAATTGC
   TTATCTCTCCGTGCACTACTTCGGGGGAAGCGTGGGGGTACAAGAGGTCGCGGTTACTC
40  TCTGGGTCCGTGAGAAATCCAGGAAGTTCTCTCCAGACTTAGGnGCGTTAGAAGTGTAG
   TCTATCTCGTCAGAT
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 629>:

**gnm\_629**

GGGTCTTCGTCCGTAATATAGGCTTCCGTCCCGGCCGTCCCTCTCAACTACTAAAGTCTCT  
 TCAGGGGGCTTTCTGGGCACGGTCCCTACCGGGGTACGCTCGTAAACSTTATCTCCGAGG  
 5 GCAACAACCTTCCTGGTCTTGGTCGCGGTTCATCGGGGTGAGGGGCCCTGGCATCCAAATCA  
 ACGCTGCTTTGGTCATAGCTATCGTCCTAGACTTCAGCGAGGTCCCTCTCACTCCTAATA  
 AAAGCCTGGGGGTGCTCCAGCGCTTCGTGCAAACCGGCAAGGGCTTCTTCAACACCGGCA  
 AAACAGACAAAAATCTCGGGGCTCAATTCGGCCGTACTCTCAGAGGCSTCCTCCGTACAG  
 GTTACTGCGAGGTCTCCGGCGACAACCTCCGTACTCTCG

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 630>:

**GNMIG90TR gnm\_630**

TGGGTTTCAGATCTGGCTCTTCGACTGGATCTTGGTCGGCTGCCTAACTTCTGCGGCAC  
 CTCTATCTTTACGGGGGAGTTAACTTGGGCACTACCGTGGCCCTAGTCATCCGGGGCCG  
 CAGCAGTCTCTTCGGCCGTCTCTTCAGATTCCCTACACCTCCAATTTCTCTTGGGGGCGAT  
 15 CCAAATCATGGGAATTAACTCCCAGTCATAAGAAAGTGCTTGGCCGCCGAAACCAGGGC  
 CTGCGTCCAAGACCTCGGCGTTATTGGCAGCGTCATACACGGGGCATTTAGCTTCTCTAC  
 TCGTACCAAGGCCCATCGCTTCGGCTTCGTCTTCAAAGTCAGCCACCCTGTGGTGGGGAA  
 CACGGTCTCTAGAGTCCGGCTCCGCTGGGTGCTGGGGCGGCTACTC

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 631>:

**GNMIG91TR gnm\_631**

TGATCGGATTCTGTACCGCTTGTGAGTACCTCCAAGGCCCTGGCCGTCAATGTGGTAAAA  
 AAGATCAGCGTTCGAGCTCTTGCGGTTATCCATCTCCTCTACTCGACCGTCTCCTCCTC  
 CTTTGGTGGATTAACCTTAGGTGTCTTAATTCCTCCCTACTCGCCTCCCATAAAGTTCTA  
 25 GTATTCAATAACCTCAACGTAGGATTCTTAAAGATCTTCATTTTCCTAAGCTTTAATCTA  
 ATGGCCAAATTGGCCGGCTTCTCATGGGCCAACTTACTAGTTGCTTCCAGAAAAACATT  
 TGCAGCTTAAATGCAGCTACCTAGGCGTCCATCGAGTCGGTAAAGATGATTCTCAATGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 632>:

**GNMIG92TR gnm\_632**

GCTGGTTGCGGATGGTGGGGATTATGCAAATTAAGCGGTATTAGTTACGCTCATAACAATG  
 AGTACTAGGAAGCATCCGAATCAGCGGCGGCCGAGGCTTGCTGGTGTGGCGCCTCCCGG  
 GGGAAATAACACAGAATTACTATTGATTTTGAAAACGCGAGTAGGCTAAATAGAAGCAGG  
 GGCCATAGAGGAAGATGGTTCTGTCAGGGGTGCGGTTGACAAAGGGGTCGAGGGGAACA  
 35 TAAAAGGTAGGAGAACTAGTGGTAGTGGGCAACAAGAAAGGCAAAAGTACGGGGGTAAAC  
 AAACAGTTGTGGGTAAGGGTACAGATACTGATGGTCAGGGGGGCCAGGGGCATAGTAAAT  
 ACTGCAGGTAAAAGGCTGCCAACAGAATGATGGCGTACGCGGGTAGA-CTGGGGACACAA  
 TGAAGTAACGTA-CTC

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 633>:

**GNMIG94TR gnm\_633**

GCTTCTTTGTAAGTACnATGGTTTTTCGGAACCGGTAGCTTCTTCGGCACTAATACTCGCT

5 GCGTCCGCTCGGGCCCATCAGACGCTACCGGCACGCTCTTCGGCGAATCCGAGGTCCCTT  
CCTTCGAGATCCTCCTAGGGCTCAGAGCCTCCCGGGGGGTGAGCCTGCTGGTAGGCCGGG  
GCTGCGAATGTCTCTCCTGGGCTTTCGGGCTCTCGGGGTATTTAACGAGTTCTTCAACC  
GAAGTACCGTCCCCTCCTAGGGGTCTGGCCCTCATGGCGGTCTCTTGC GGCTTGCG  
GCGGCTTCAGAAAGGCTTACTGGCGGCACGGGGGTAGAGGGAATCCCAAAAAGGTCTCTC  
CCGGCTTCTTCCCGGGCACGAGCAACGACGTCCGTTTCATCCGGCTCCGCTCCCGGCAGCG  
AGGTCGAAATTCTTCTCGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 634>:

10 **GNMIG95TR gnm\_634**

15 TCAACTCCGGACAAAGCTACACGCTCCAGCTCCTAAGTACCCCCACGAGCGCGGGTAGTC  
GAGGGTTGGGGGTTGGGGGCCGGCAAATCCGACAAGTACATGGGAGGTCCCACCCCGCGA  
ATTTGGGTAAAGTACCCTAATATAGACCCTCCGCTGGGAGCGCGTCGCAAATAGTAGGC  
GGTTGGAGTCCGGGCGGGAGTACCTGGTCCATCCCCTCCTCTCTTCTCTTTACGCGGC  
TCTTCTCGCTTCCAATCTTCGAGCTTCGTGCAAACCTGCGTTGGGTACATCCTAGGCTCG  
TAGGGTAGTTTGGGGGGCACTACCGTGGTAGAATTCTTCGCAGGCCTAATAGGGCGAGAA  
TTGCTGGGGGGTACTGTGGCAACCCTCCTGGTCCCTATCTTCGTTCTGCTCCTACGACAAC  
GGCATTCCTCGCGTGGGCGTCCCTCTCCTGGTCG

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 635>:

**GNMIH01TR gnm\_635**

25 AACCTCTAGGTACGTCCGACATTAACTCCAGGTCTGCAGGCCGCGCAGTGTGAGGTGTA  
GGGCGCGGCTAGGGGCCGAGCGGTGAAGCAAGTGAGAGCTACCCCTCCTCCGGGCGTAA  
GAGTGGTGCGCTGCTAGTAGTAAATTTCGTAGGCCAAAACGCTGCTTTGCTTCTGCTATG  
GGGGTACATCATTGGAAATTCGGGTGAGGAAAAGACTCTAGGTTATGGGGTACATCCTAG  
TTGGAGCGGGTTTCATTAAGTCTTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 636>:

**GNMIH02TR gnm\_636**

30 CCTACATCTCACGGCTTCAGGCGGGCCGTGAGCCTCAAACCGGTGGGGGTTAATAACTTC  
CGGGGCCGCTTGCTCCTTTGCTGCTGGGTTCTTGGTTGCTTCTAATGTAGGATCTTCTGG  
GGCATCCTACCTCCTAGGGAGTGCCTGGGCAACCTCGACAAAACCTGCTGCTATAACGGG  
TGCTATTATAGCATCTCTAGCTGTCTGAAGCCTCCTAAGTCCTAGTCTAGCATGCGGGG  
CCGCGATCCAAGTCGGCTTCGTAGTCGTAAATGTCATCATGGACCTAGCTGCTGCAGCTC  
35 TTCATTATAAATTGGGGTCTCTACGGGCCCTAAAGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 637>:

**GNMIH03TR gnm\_637**

40 TTAAAACTTTTCGCACCTAACTGTAAATTCTAACAAAGCTACCTCTCGCTGGGATTAGGG  
TTACTGGACCTCCTAGTCCTCCTATACCTGGTATCTTAAGGCGCAATCTGTTTCAACGTC  
TTAGTGGCCCTCGCGCTAAAGTTTAAAGTAAATTGCGGGCCAATCCTAAACACGGGCTTT  
TCTCTTGACGCGCTTTCGGCACTTTCGTTGGTTCATTATTTCGCTAGTCATCCGCTCCTTC  
CGAGCTCTGGTATTCGAGGTGGCCTCAACTGCGGCAACATGGTCTTCTAGGATTGGAG

AAAAGAAATAGTTTGTGTAACACGTGCAGAAAGCGGGCCAGGCTGGCACAGGCAGCACG  
AAGCCGCGGAAAGGTAATTGGGAAAGGAAGAATGGAGCCCAAGGGTGGAGAGACACCTA  
GGACGGCTTAATAACAGCACTAAAAGAAGCCATACGGAAA

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 638>:

**GNMIH05TR gnm\_638**

TTTCCGTCGAACGTAGCTTCTTTCTTGCATTGCTCAGCTATTAGAGGCCAAATGCATAC  
CTCAGAGTCGGGGCCCTAGAGGCACAGGTCCGAGTCATCGCTACTGGGGTCCTGGTAATGG  
GATTTCTTGCTTCGGGCTTCGTCTCCGGGGCCGTACTATAATCGGCGGGGAAAAACAA  
10 TTGCGGGCGGGGTCCGAGCCGAAATCCTGGTCGTCTGCTTCATGGTCGATAATAATTGCT  
TGGTGGCCAAACAATATCACAGCTCCTCAAGTAAAAGCCAGCGTCTGCTGGGTTCAAATG  
CGGGTCTCTTTGGTCTCTGTAAAGCGGTGGGTAAACGAGTTTGCGGTCGTAAATTCTTGCT  
TCGTAACTTCGTTAGGCGCGAGGCTCCGGTCGTCCAG

- 15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 639>:

**GNMIH06TR gnm\_639**

GGCAAAGTAGCCGCTCTATTCGCCTGCTTCACAAATGCGGCTACTTCGGTCAGCTTCGTG  
CAATCAGGCGTTCGAGCCGGGATACTTAGGTTACTATCTTCATTCTCGTGGTCACGTT  
CCTCGCGTCGATACCAAAATTACTCGCGTGCTCTTCGTCTGCAGCCTCCTGGTGGTCATA  
20 GCATCTCGCCGTCAGCCCCTCGGGGCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 640>:

**GNMIH07TR gnm\_640**

TCCGTTTCCTGGCGGTAGCAAACTTTATCTGATCCCGGGTGAGGTGTGTTGCTGAACCG  
25 GGGGCTTCGACCGTCCAGATCAAGAGTTTCATTGATAGGGTAAAGGGATAGTGTGGTTAAG  
GGTCTAAATGGCCGCGTTAATGTGGGTATCTTTGCGGGCTTCAAAGGCAGCCGTACGTCC  
CTCCAGGTCTTGGGAGTGCTCCTAGTCAGAAGTATCTTCCGCTTCAAAGGCCTCGCCTCC  
ATCGGGGCGTTTCAGATCCAAATTGCTCGACCGGGCCCTGCGGGCGACGTCGTCAGCAGG  
GGAGTGGGCCAGCTCCTCCGGGCTCTCGCGGCTTCGAATGCGTCGACCTACCTGGGGGC  
30 ATCCATACCGACGCTAAGATGGTCCCGCCAGTGTGGTCATCAACTCCACATCAGCTTC  
AAGGCCCGGGCGTTTCGCTACTAGCTCGGCGGCTCTTAGCCGCAGCGACACCTCGGGCTCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 641>:

**GNMIH08TR gnm\_641**

ATCGCACTCCGGGGAGTTAGGATTCTAGTAATTAGGTAAACCAAGGACTACATTCGTACA  
35 ATTAGGAATCCTAGGCACAAGGGTCCAAGTACCTAAAATCTCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 642>:

**GNMIH12TR gnm\_642**

AGCCAGCCAGGTCGTAGGTTTCTCTACCTCCCAAGTGACCGTGCGTACGCTCCAAATGGA  
GTCCAGAAAATCCGGGTGCCACTAGGAGGTCGATGCCAGGTTTATGGGTGCGC

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 643>:

**GNMIH13TR gnm\_643**

GCTTCGGGATTCTCTTGAGGGACAACCTCCCTCCATAAAATCTTGCTTCTTCGGCTTCCAT  
ATACTTGCCTCAAGATATTCTATGTCGGCTTCTTCCCTTAGGCAAGGGGCTTCATCTCC  
GTAAATGTCGCTCTTGCTCTCTTCAATGCAGCTACGTTCTTCGATTCTAACCTCGCCCTC  
10 TAAGCCTCCTCAGGTGTCCTGGCCAACAGCACTACCGGAACTTAGGGCGCTTCACTTC  
ATTAAACTCAACGCCGTCAACTTCGTAATGGTAATGTATTCCATAAAGTCGCAGGCTAC  
CTAATCTTCTTCTTCGTCCATCTCTTAGCCTGCTTCTTAAACAACCTCCGCTTAAATCTC  
TTTGCTTCTGCTTTTCGCGTTTCGATTGGTTTAGGCTACTGCAGCAAATTCATCGTCATA  
AATGGCTTCAACTTTGCAAATTCGGCAAAGTAACCTACTTCTAAAGTTCTCGG

15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 644>:

**GNMIH14TR gnm\_644**

CCGGCTACCAAAACCCGGGCAATTTCGCTAGTTCTGGTCAGCGTGCGCAGCCGCGGGGTTG  
GCAGGGGCGGCGGCCTAGGAGGCGGCAGGAGTCGTTTGAGCTGCCGTCCCTACGGTAATA  
20 AGGGCCTAGTCTCTTGCTTTTAAGGAAGTCCGGGGAGCTACAATATCTGCTGCTTCGCCG  
GCCAAAAGATAAGTCCTCCAGAGCGCCAAAGTCAGTACCTAGTGAGGAGGCTCGCCTGG  
TACCTCTAGATCCCACACGGCACTAATCTCTGGAACCTCGCCGGGTTTCGGGGCAGCACC  
TACCCTCCTAAGAGGCGTACTACGAGTCCTAATTGCTGCTGCTGGTTTGGCTGCTGGGAT  
GAGGGTTGCTGCCAG

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 645>:

**GNMIH15TR gnm\_645**

CGCGGCTCTTAATGCTTCCATAGTCGGGCTTCACCTCGGCGGGGGCGGTATGAACATTAA  
ACTTGCTTGCGTAGCGATTCTTCTCTTCTCAGGGCCAACCTGGGTACATCCTAGGCCGT  
30 CAGTACTTACTTCCTCCTCACGGGCATTCAATTCGTCCCTGCTCCAGACTCTCCTAGAGT  
ACCAGCTTCTGCTAATAACCGCCTCCTGGGGTGCTCTGCATCATCCCCGGGGGAAACAA  
ATGCTTCATAGGCTTAACCTATCGGACCAGGACCAACGGGATGCGGCTCCAGGCTATATAT  
GCTAGTCCAAATAGTGGGTCTTCGTCCCATTGCTTCTCTGTACGGTCCTAATCCTCCT  
TCTTAAAGTCTTCGAATTTAAACGTCTATAAAAGCTCGGGGAAGCTAAAGATCAT

35

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 646>:

**GNMIH16TR gnm\_646**

GAGGTAGGTAAATTCCTCTAATATAGGGTTAGTATCTTGAGGGCACTTGCGTTGAGATT  
CAGCTTCTGGTCCCTAAACGTTCAATATCTCGTAAGATTCTTCGAGGCCGTGACCAGGT  
40 CCTAAAATTTCTACGCTCCAAGCCCCTCGAAATCTTCAAAGTAAACCGGTATCTGCGTT  
TGTTATCTGCTTCTTCTTAAACCTTTCTAATGCCAACTCTAATATACTCTCCCTAGTAA  
GGACCTGATTCTGCCGAATTCTTCAGAGCTTCAAACCCGTGCATCAGCTTATTCGCTC

TGCGTAAATTTGGGGGTGCTTCTTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 647>:

**GNMIH18TR gnm\_647**

5 AAGATCTTCATCTTTCAATAGTTCTCGGGCTCACTCCTACAGCCTCGGCCATAGGTAAAT  
TCAAGTACCTCTCCACGCTCCATGCATTCTGTCATGCTTCAATATAACAAATTGATTC  
TAGTTCTCTTTCTTAGATTTCGATGTCTACCTCCACC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 648>:

10 **GNMIH23TR gnm\_648**

TGATTGCAAAATTCTGGCTTTAGGGTTGGCAGGCCAAAAAGTCCCTGGGGGTAAGCTCT  
CCTTCCGAAAGAGAGTCAAGCTACCGGCTTCTTAAGTGGGAGTGCTTTCTCGAGTTTAA  
GGCTGCGCTTCATGACACGGGCCTTTCAGAATTAGGGCCTCCAGGCGTTGCAAATAGCGT  
15 TGATAGTACTTTTAAACAGAACTGCAGCCTTGCCGGGAAAGGCTTACTGTAAAGTCGGCT  
CTTAAGATTAGTTTTCTGTCCTACATAAATGTAGGGTATTCGTCAACTTATCGATCCGCG  
CCGCGTTCTTCAGACTTACGGGCGTGGCTCAGCGGACTCCCCGGGGCGGTTAGGCGCTAG  
CAATCCAGCGCGTAGACCTAAAGACTGCGGGATTGAGGGCAAAACCACGAGGGATAGTAC  
TTCAGCTTCGTAAAGGGGTAGATCGCATCGCTTGGTCTTAAACTGGTGGTACTCTCTCT  
ACA

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 649>:

**GNMIH25TR gnm\_649**

TACCAGGAGGGTAATAGTACTGGAACCCCAGCATAAGCCCATAGAGGGAGGTCCAACTT  
CGCAGGGTTCTTGGGTACATCCTGCCCATCCTAAGCATGCATAATTGAAGATACAGACTA  
25 ATCTTCAGAGGCATGCGGAGTCCTCGGGGGCGGCTTCTGGATCCTAGTAGCACCAAGATA  
CAAAATCTTAAAACTCTCTGCAGTAGCCTTCAATCGAATAAGCTTCTTTGGTAACAACT  
TAGAATTAGACGAAATCCCTGCCTAAAAATACATCCAGCTAGATGTCTTATTGAGATAGT  
CCAGATTTTCCATAACAACAAACATTTCGCACTTAGATGCATACGGGGAAATTACTCT

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 650>:

**GNMIH26TR gnm\_650**

AAGGAGTGGTGGTACTTGCCGGGATGTCAGGAGGTTAAGCACGAAGAAGTCTTCCAGGGG  
TGTTGGGGGGAAGAGACGAAAAGGTAGCAAAAGAGCCAGGGGTACCAAGAGCGTGGGGAG  
TGGTAGAAGTTGTCGAGGTACCAGACCTACAGCCTAGGGGGGGAATTTTCGAACGAACATA  
35 AGTGGGTGTTTAGACGTCGCTGGAATGATATCTAGTGGGGTCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 651>:

**GNMIH27TR gnm\_651**

TTTCTTCCGGGCTCTCCTCCTGACTAAAGTAGCATTCCTCACGCTGGGCCCAAGCCTCCT

5 CCTGGCCAGCCCTCGTCCCGGGGTGGAATTGGCTCTCCGTACGCTCCAAATCACGGTTCC  
ATTTAAATTGAAACACCAAAGCCAGGATGTAGAAGGCGACGTGGGTGGGTACATTGGAG  
CGTCGTGCAAATCCCAAATTCAGACCATCCCCAAAGAGACGCCAGGAATAAAAAGTACCA  
TAACCTCCTCACTTCTACATACGATACAGACGATCCAATTCAGGTATGGCCGCTGGTACT  
ATTGGACACAAGTCGGTGTGGGCACTGAACCTCACCTAATCTTCGATGCCGGGGGCGGAA  
GTTATGAGAAATGCTTTCTTGCGCACGCCTCCACTACCCAAGTGCGCGCTCCAGGAGCTT  
AGAAAATCCGCGTTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 652>:

10 **GNMIH28TR gnm\_652**

AAATTCATATAGGTAAACTTATACAAAGGCTCCGGAAGTAAGTTCTAGTAGGTGTGGTTCC  
TACAAACGAGTTCATAGTATTCCTAATAGTATTCTAATACATAATCTTAAACGAAAGGGC  
CCGGATAAAAATCCTCAGCACCGGGCTCGCTCTGTCCATGAGATTCCGGATCGGATTGCT  
AATATACCTAATGGAGTTCAGAACCTGGGAAATACTGGGCCACTCATATACAGGAATCCT  
15 AAGCGCAAGTGCAATTACAAGCTCCTAGGCCGTGGCCCTAAACTGCTAGGAGCCCCCTAA  
AGGTAACCCTAACCAAATACTTCGCGTACTTGAAATTAATAGACTAAAGCCTAGGGCAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 653>:

**GNMIH29TR gnm\_653**

20 CCCGCGGCGATCTGGGGTTCAACTCGGTACTTATCAACCTCCTGGCCGTCCTAATTTTCG  
TTCTCTTCAGAGGACTAATTGCTTTCGCTTGCTTCAATCTGGTTAACCTCGCAACCTTC  
GTGACAAAAGGGGCGCCGCTCCTACGGGCCCTCTCCATCGGGGCAATAAAATTCGAT  
TCTACCTAGGCCTGGGCTGCTTTCATAAGCTCTCGGTCTACAGCGATTATTAAGTCCCAT  
CCCCTAACTGCCCTACTGGCTACCTCCAGGATCATCTCTGCCCTCGCAAACCTCAAGCTC  
25 GCCAAGGGAGGATTCATAGCCGCGTTCTTGATTCTCAGCTTCAGGGCCGCAGGGCTTCGC  
TTCCTCTCTGCATCAGGCTTCACGGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 654>:

**GNMIH32TR gnm\_654**

30 GTCGTGCGAAATCCCTGAATCCTGCTTTACTCCTACGTTACGCGTTCAAAGTACTTGCGT  
CCCTACCATCGTCGTCTCCAACCTCTAACTGCTCTCCCATCCTTGGGCTGCTTTCAGAT  
CTTCCGAGTTTCATCCTGTCAGCACCGGGGCTGCTGCAAGTGCTCCTCCAACGGGGCTGG  
CGCTACTAAGTGCTTCTGCAGCCTGGTCATCTGCGGGGCTACGGCTACTACTCGCAAGGT  
CCCTCCTAGTACGGTAAAAAGTATCCCCCTCCGAGGGCAGGGGCTCTCTACCTCACATAC  
35 CCTCCGTCTTACGATCTCCTCCGCGCTCGCCTCTAGCCCTGCTTTTCGAACTCTCAACGT  
CAACGGGCTTGCTCCTGCTCCTGCTTCTGAGTACCTTCTGGGTAGATACTAGGGTAGA  
CTCGGCTAAAATCGAGGTGGTTCATTACGGGGTTCCGGTCATTTTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 655>:

40 **GNMIH35TR gnm\_655**

GATTTAGCTCTTCGTTTTCTGTGTACCAAAGGTCACGAGTAATGCCGTCAAGGGTACTCT  
ATCCTCCAGGTCTAGGGCAACGCTAATGGGTTTGAATACAAAACCTTACGAGCTCCGAC  
TAGATCCTTGGGTGCTAACAAACAGGCTTAGCACTTATATCTAATGCATTTAACCTCAA

TCAGATTATAGTTAAGATTGCGTTTCTTATGCTATTTCGTATTCAAAGTCTTAAATACTGG  
 AATTCTTATAAACTATTAGTACTTCTCAAAGTACATCCTATTCTATTTAACCCCTACTAA  
 GATACTCTTCAAAAACCTTTACTCCTAAACTTACATGAGTAAATACTCGAACTCATAATTT  
 GAGAACTGTCAGGTCTACTGCAGGTACTATAGTCATTTTTTGG

5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 656>:

**gnm\_656**

TAGGGCGAGTTCTCGGGAGTCCAGGGTGCGGGGGGTATGAGAAGACTTCCGGGCTTCGGC  
 TACCTCCGGGGAGCCCAAACCTCCAGCAGCCGATCCTCGGGCAGAAGTCCTAGTACTCCC  
 10 CTCACTCCGGGTAAAGATCCTCGCAACCTGGGCCAATGGGGCTCTCTCTAACAGCGTCAA  
 ATCTATTGGCGCCGAGTCAAACCGCTCCACAGCCTCTCTCTGGTCCAAATCCTGGAGCTC  
 ACACATCACCGAGAGCTTGGCCTCCATGGTCGCTAGTTCAGTCCTAAGAGTCCCCTCGCT  
 AGGCTTACTCCGATCGGGAAAATCCAGCCAGCTGCCGTCTTTTTGCGGTCAGCTCCATC  
 TGGCTTGTGCGTCTCTATCCTGGTCTCATAAGTGCTGCATCTCGCTCCTCCAGCGCCGG  
 15 GGCAACCAAACtCCTCCTGCCGCTGCAGCCGCTCTCAAATCTTCTGCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 657>:

**GNMIH38TR gnm\_657**

ATTTCTGCGAATATTTCGTACTGTTCTTAAATCTTGGAGTCCCTCCATCTGGCTTCAGTGC  
 20 TAGTAAAAGATCTATGATTGCTTGGATTTCGGGTCCTCATAAGTAATCTCGGAGTCAATGC  
 TAGATCTCCTACCCCCGAAAATCTTGCCTCAACGCGTCCTCCAAAGTTGTAAAATTTGG  
 AAAGTCTCTCTTCAACAAATTGGCCCTCCTCAGGGCCGTCCTCGCCACAGGATTTCGTTTT  
 CTTGAGGGTCATCAGCTTTAATCTTACCTTATTAACAGCTTCTCTCGTGCCTCCCGGGC  
 AATCGAGGCTCTTGCTGTAATCAATTTATTCTTCTTCTAAGTCTTGATCCCTGCCATAAT  
 25 CTTGTCCAACCTATCGGGCGTCGCGATCATGGAACCCCTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 658>:

**GNMIH42TR gnm\_658**

TGCTTGGGCAGGGCTGTTCTTATGGCCCTGGGCTTCGTAAAACTCGCGCCCGCGCCGTCG  
 30 TCAGGGCGGGCGTTAAGGTCGTAAAGTACTTCCGTAAAAGCCCTAAGTACGGCGGGCATCT  
 GGTTCATGGCTCGGGTAGCAATTGAAGCTACATCCGGGGGTGTCCTACGTTCTAGAGTTA  
 TTACGGCCGGCTCCTCCGGAATTAGACTGGTTAATATGGTGGTTATGGTCCGCCCTCAGC  
 GCCGACCCTAGCCGGGCTGAATTGGTGGGTGCACGTAGTAGTGCCTCAA

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 659>:

**gnm\_659**

AAAAATGCGGTAATGGTGGTGGTGCCATGGTGGCCGTGCTGGTCATTAATTCGTTGCATC  
 ACAAGGGGATGGATATTAATAATGCCATTCTGATCAATTGGGCAGTAATAATCGATTACA  
 TTATGACAAAAAGAGAGCGCCGTAGGTATTACTCGGCGGTGGTGTGCAGCCCTAGTCCG  
 40 GGCTGCAGCGCCCCGGAGGTTGGTTGCATTAATATACCAACGCCAACGCTTCGTGCAA  
 CATTTTCAGGGTTAAAAGTTAATGCATTTTGGTCTAAAACTAGGCCCTAAAGATCGTGGT  
 TGCATCCGTCTTTGCGGGCGCCGATAACGAGGCTGCCCTCCATGCATTCTCTATGATATT  
 CGT



The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 660>:

**GNMIH46TR gnm\_660**

5 TGGGTTCCCCAAGGCTTCACTGCTGGCTTGAGAGCTACAATCAATGCTGCAGCTAGAGCA  
GCAAAACACCAAACCAGCTGCGGGTTCAGCAGGAAGTACCCGCGTCCATCTCCGCTCCTCA  
GCTTTAGTCCTCGCAGCAGCTATCAATATCAACAATATCATTCTCTTAGTCTATCCTGTA  
AACACTGCATTACATAAGGGTTAATTCTTACAACCCCTGGCTCCAAGTCCATCTCCTGGG  
ATCTCTGCCTCAAACAAGCCGCCACCAGGGCAATCATTATAGGTAGGGCCAAAATCAGAG  
GGGCGGGCTTTCTCGATGTCAGGTGGAACCCAGACCACGTCCAGAGGGTTAGCTTCGTGC  
10 AAAGATCCGGGGTTCGGGTACATCCTAGGGTTCGCGGGTACTTTACTAAGGTCCCTCCAA  
GCTCCTAGATCCCAAGTCCCGGCAGGGGCGCTGCTAGCCTCTCCGCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 661>:

**gnm\_661**

15 CAGGAAACGCACTTGCTAATAAAAAATCTCAACAACCTCCATCACGGAGATCAAAGTAACAA  
CAAAAAATGCATTTAACCTCATCAAGGCTAATTTCTCGATAAAAAAGCCGCAAACGGGG  
GAGTCTTAGTAAATCTTCGTGCTAAGTTCCTCATAAAAGCCTCCCTTCTTATCCGAATAA  
ACCTCGCCGAGTCTCTAGGTGCTTACGCCAACATAGCTTGGATAGCCTCCATsCTTCGTT  
CCGACATAGTCGATGCAATTTAGGCCCTCGATTGGTTTCGAGCAATAGTCCGTACAGGGG  
20 CCAACGGTATGGCCCGGCCCTACTAAAACCGAGTCTCACTCGAGTCATTTCGAGCTGCAA  
ACACTAATCTAACTACCTCACGGCTCTCACGGTGGCAATACATGTGATAATCCTACTCC  
GAACAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 662>:

**gnm\_662**

25 GCGTCACCTTAGGCCGAGTTACGGTCCTAACCGACCTGGGAATTGGCCTCACTACCTGTG  
GCGTCGCTCCATCCGGGGTTCGTCACTTACAATATCCTACCTCGCGGGCTGTACATCCCTCT  
CCGGCATCCTAACGGCGATTACGTGGGAATTCACCTCGTGGGCCGGGCCTATAGATCTT  
ACAGCGTCTTCCTGGTAATCGTCGCTGCTAGGACCATGGGGTTGCTTCTAGTAAGCATGG  
30 CCATGGCCTTCGTCTGGTCAGGGTAACCGGGGCGGCGCTCACTTCGAGGTGGTTCTTC  
TGGCTCTTAGTACGTTTCATCGGCCCTATACGATTTAGCCGGCGTCCCGTAAAGCTCTTCG  
CGGTCTCCTACAACGTCAGCCGGCTGGCCGAAATCTTCCTAGACTGCTGCGTCCCAAGTA  
TCCTGGGCCGCGTGGCTCTGGGCTTCGGGGGCG

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 663>:

**GNMIH50TR gnm\_663**

40 GCAAAAATTGGTAATAAACTCCTCCAAATAGAGGGGCCCCAGCTTCTGGATTTTTTGCGC  
CCCTACTACTTCTATCCGGCCCTATCCTCGGGTCTCTACTACGTTTGCTGGCTTCAACG  
CGGGCTTCTTAGTCCTCTCCTCCTACCGATCCATAAATTCGGTTAGCGCAAAGAGCTTCT  
CTTCCATCAGCTTAAAGTTGCTGCCCTAACCTAATTCGTTGCTTTCAACATAATCCTAA  
TCCTCGCCGAAGCCGCAGGCATCATAGTATTCGGGGCAGATATCTCTAAAAACAATTCT  
CGCCCCTCAACGCCTCAACTCCTGCCTATATCAAAGTTCTAAGTTCTGTATCTTTAGTTA  
CTGGGTTCTTCAATCCTGCCTCGCCAAAGGCCCTCCCAACTGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 664>:

**GNMIH51TR gnm\_664**

```
5 GTTCTAAATTATTGTAAATTGTATAAATTTGGGAAAAGTTCTGAGAAGTCTTTCTAAGGG
CAGGGAAGTAGGTGGATGGCAAAGCCTATAAAAAAGTTAAGTTCGTAAACCTAGCAATCA
TTGGTGCTTGCCTAACTAAAAACAGGGTAAATGCATCCTGCTCGGGGCCCTACCTCGGGCA
ACAGATCCGTCCTTCTGCCATATCTCTGGATCCGGAGTACTAAAGTTCGATCTTCAGGCG
TCACTAAATTCGGGGCGGGCGTTCTGTAGTCCTCACCAAATTCAGCGCCGTCCTAACCA
AAGCGATATTGGTGTTTCAAGTAAATCAGGTGGGCACGGGCACTGGCTCGTTGCAACCGAT
10 CCTGGTTGCTTGCTCGCTCCGCCGTCAATATAATTGGTGCGATAAGACTTTCTAAACTG
CGCCGAGAGCCCCCTT
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 665>:

**GNMIH52TR gnm\_665**

```
15 AATGTGGCTGAGGCTAGCTGCTAGGCTATACGGGCAGGGCATACTGGCGACAAAGTAAGG
TTCAGGAGGATTAATAAGTCAGGCACAAAAGAAAAAGAGGGATTGCAACTGACAAGTAC
GGGGCCCTAGTTACCGGAGGCGAGGAGGCAAGAATGGAAAAAGAGACACAAAGGAATTAG
CTAAGGTGTTGATGTAGCCTGCAAAATTTAACTTCAGATTCAATGGGTGTTTCAGAACTG
CCAATAGTGCGGAATCAGCGTTCTTGCCCAACGCCAACACCTGCAAATGCTTCTCTTGCT
20 CGGACTCCCTCGCCGAGGCTTCAACGCAAAGTTCGGCAAAAATAGTTCAGCTACATTC
GGGCAATCGG
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 666>:

**GNMIH53TR gnm\_666**

```
25 GCTTTGTTGTGCAACTTCATTATGCTATTTAGTACTGCTGGCTTTTCAGATAGAGGCGCTA
TGGGTCTTACAGATCTCCTTAGACGTTCTATTACAGACAATGCAGCCGGTCCAGCAAAA
GATTAACGGAAACGAGGTGCTTACGACAAATTGTCTGTGTTCAAAACATGTGCTGTTTAA
GTAAAGTTCTCAATCCGCGACTCCTGCTTCAGGCATAAGGGAGTGGCCCTAATTAATCCT
CGGGGCGGTTAGGCACTGGCAAGCCTCCGGCTCGACAAAATGCTGCGGGCTTGAAAAGA
30 AAGCCCCTCCTGCTCGTTAAATGCCTACGAAGCAGGGGTAGATCACAGCGATTGCCAACA
AGAGTCTTCTTCGGGGTGGATCCGCTACCTAGATGGGCCTCTAGCTTCCGTTTCTCGGGC
GAACATAATGGCTTCGT
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 667>:

**GNMIH54TR gnm\_667**

```
35 GTCCGATTTGCGGAGTCCGGTTCGATGAGTGCGATGCGTGCTCCTGGTCGTCTTGGCGTT
GCAGGGGGCGGAAGTTATGAGATGATTGGTATAGGGTGGAAGAAAGGGGAGCACGAATTA
GATGGTGGCCGTGCTTAAAGTCCGGGTCGTTGGCTGCTCCTACCGGTCCTTAGTCCGGG
CCCTCTCAGGGCCAAAGGGTTGGAGATCCTACCTATTAATCCTCCTCTCCGCGGGGGTTG
40 CTGCGGGGGCAGAGGGATGAGTGGCCGTCTTTGATTTCCGTACTGGCTTCAAGGGGAGAG
TCCCTCTATCCCTCCGAAAAAGCTTCGTCAAGTTGGTACCCGGTGCTCGTTCCCTATCTA
AGCCTGGGCCCCGTCCCTCGAGCCCTCGGCTTCTTGCTGGGAGGGGCTGCGTCGGGGATAC
TCGCCGTCTCCAGCCCCAGGAAAGGAGCGTCGTTATACGGGGATCC
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 668>:

**GNMIH55TR gnm\_668**

5 AGGGCAAGGGTTTGACGGAGTGACCATACTTTTGAGGTGGGAATGAAGGGTGAAGTGGCA  
AAGGAGCACATTAGAGCTGATGATTAGGGAGTAATGGGGGAGGGGCGGAGGCCACGCG  
GGGGATGAGCATTGTAGCGCAATTGCGGAAGCAATAAATTACGGGTAATAAGTTTCACTT  
AAGCATACCAGGGCAATAGATCCGATAGGGCAGGGGTACCCTATTAAAAGCCGGAGTTT  
TGAGCCTGAGTGGCTATCCGAGATCTAACATAAGCTTATAAAAGCCTGGGTTCATATCTT  
ACCTACCAGCTGG

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 669>:

**GNMIH56TR gnm\_669**

15 TTTTGTGTTTGCGCCCCACACCTCCTAAATTCTACCGGGCTGGCCCTCCTAGGGGTAATC  
GCTACCTGCTGGGGTCAGGGGGGCTACTGGTCCGGGGACTGGTCTACAAATGTGCTGGGT  
GGTCAAAGTGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 670>:

**GNMIH58TR gnm\_670**

20 AAAACTTTGGCGAAATCTTGCGGGGCATTGGTCGTATCCTAATCCCAGTCATCAGAGCTC  
TTATCAAAAACCGGTGCTTCGTAGTGGTTATCGGCAGGGTAAGGCTTCGGTTTCTACTCG  
GGCACTTCGCTAGTGTCTCTTTTCTCTTAAATGGTAGAGAAGTCCCAAGTCTTCTTGGA  
GACTGCATCTTCTCAGCATGGTCTTCGTTCAAGTCAGGGTTGTCTGGCAACTCGAATTTT  
AAATTGGCATTTCGCGTCGTTCGTTGCTCGTGTAGTGGCCTCAGGGTGCTCGAGAATGGGC  
GTAGCCCGGGATGTTGCTTGCGAGAAAGCCTAGCTGCAAGGGAACTTTGGGGGTAACCT

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 671>:

**GNMIH59TR gnm\_671**

30 CGCGTCGTGCAAACACCTCCGTGCGGCCTCCGTAGGCTGGGTTAGGTGCGCCAACAGTCT  
AGGCGCAACTACGGGCGTAAAAAGAGGTCTAATATCTCTTTTGCTTCTCTGCCCTCCTC  
CGTACCCAACCTCCAGGGCTTTCACTGCTTTTGCAAAAGTCGCCCTACCCTAGGAACTTC  
CCGCACCTCCAAAGGCTTCTTAAGTTCACCCCTCACAACGCTCCGGGGCTCGCGCCTCCAC  
TCCATGCTTCCGTTCCAGATTCCAATAAGTATACACAAAAATCGTGCAAGCCTAAGCAATA  
AAGGCAAGGTTGGTGCTGCTGGCTCCGCGCTCGGGTTCTGGGGGTTGCGCGCAGCTACT  
35 AAAATTACGATACCTGTAAGGGTATACTGGGCCAGAACCTCAAAAAATACCAAAGTCTTG  
G

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 672>:

**GNMIH60TR gnm\_672**

40 TGCGAGGCGTCTTCGGGCTTCGCTTGGGCCTACTCCGCGGTCCCTGCTGCCGTCCAACGG  
GTGGAAAGCGTCGTAGGGATTCTCGCTTCCGTAGCAGCCAATCTCCTGCCATCCGAGGGC

TTAAACAAGAGGGAAATTGCTTCTGCATTCAACACCAAACCTTCGATTGGTAATTGCAGCA  
AATTCCAGGTTGCTGCGTTTAAAGCTTCTCGCTTCAGATCTCTCGCTACAATAGTTTCA  
GGCGTACTGATTGCTGTTGCTCTCTAAAGCTCTGGTTGCTTAAATTAAAAGTACTAGAT  
CGGAGTTTGGAAAGTCACTGCTGCATTCTCGAGGCGGTCCCTGCCGTCTTGCCTAAGATC  
5 CTGCCGTGGCCAGGATCTGCCCTCCAGGCCGATGCATTCTCGGGTGCAGGGTTTGCATTG  
GGAGTCAGCTCCATATTTAAGATTGCTTTCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 673>:

**GNMIH62TR gnm\_673**

10 CCTTAAAGTCTTCCGATAAGCTCCTACTGGTCTCTAAAGTCTCTACATCCTTAAGCTTTC  
TAACAGGCCTCCTGGGGCTTGCGGTCTACGCACGGTTATGGGCGTGGGCAACTCCTGCG  
CTACAGGCGTCTGCTGAAAACGAAAGTTTTTAGGGGGCTCCGGCGATTCTGCGGGGCC  
GAGACTGCTTGGCTGCACTTAAACGCGGATTCGGATTACAGGGGGAGGGATAGTGGGAG  
ACCTCACAGTTAAACAGGCCAGATTTAAGGTGGTAACCCGATCTAAGGTAGGACTGGCCC  
15 AAAGCTTCGTTGCAGGCACAGTTGCTTAGATATCTACCCGGGCCAAGCTCCTCGTGCTTC  
TCGGCAGCAGCGCGTCTTCGGGCAAGTTAAGGTCCTTAAACTTCTCGACTTCGCGGGCC  
TAAACAATTGTGCTTAGGGCCGCGCGTCTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 674>:

20 **GNMIH63TR gnm\_674**

TATTTAGAACCCGAGAGCGGGCCAAAAAGCAGGTGAAAATGGGACCTCGCTTCATACGAA  
ACGTGGGCAGGGTACAACGTACAGAGACTCCGAAGGCGCTTAGGCCCGAATCTGTGTGGG  
ACGCAAGGGGAGAGGAAGGGGCAGAGGTTAGACGGTATGAAAAAGTTATTAATTATGACT  
TAGAAAGAACGGACGAGGTTGAAAATAAATCCGGGGAAGTTGCTTGGGGGCAGGCTCTGG  
25 CTGGCTCGTCGGAACCTTAAGTCTACTTAGGCAGCAAAGGAAGAACAACAAGTCAGGGTA  
ATCAAGAAGGGTATCAGGTGGGGCCGAAGAAAGTAAACAAGGAAAAAGCCTAATATTA  
AGAAAAACGATACTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 675>:

30 **GNMIH64TR gnm\_675**

AAGATCATAGTTCTTTAGAACAGGTCCGAGTCAAATTTCTTCTAAGGGCCAGCAAAGTAA  
ACGGCTTAAGATGTACCAAGTGGGCGGCAAAAGCAAGCACCGCTGCCAACCAACACAACC  
CCTGCTCTCTCAGAGTCGAGGCTGTAATATTCATCTTCTTTGCGAGCTTCCAAAGCGTCT  
GCTGGTCTGGGTACATCCTAGAGTGCTTCTATCCCACTTAGTCAGGTACCTACCCTTAA  
35 AGTCAAAAAACACCAGGGCGTCCGGGGTAATTATAATAAACAGCTTAGGGGTGGCCAAA  
CAGCCACTGGCCCGCAGCTTCTTAGCAGGAGCCAATGGGGCGCTAAAAATAGAACTATGG  
TATCAACACA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 676>:

40 **GNMIH65TR gnm\_676**

GCCTCTTAGATTCTTGCTACCGTGCTTCGTTATCCATCTTTCTTAAGAAGAGCCACATT  
AAAGTCAGCGGTTACAGGGTGGGGATCGCTCCAGAGTTCGTCCTGGGCTGGTACGTGTG  
AGAATCCTTGTAGTCGTCAAACAACTGGTAAGCGTGGGATTCTTGTTCTGTGGTACCTCTG

5 GTTGGTTCTAGAGATCTTCGAGACGGGGGCGAAGGGGTCGGAGACTTCGCGGTGGGGTGC  
TTAGATACGGTCCCAAACCAGAGCTGCTTCATCCAGGTCCTGCGCGTCATCAGATTGATT  
GTGATTTTCTCGTTGCGAGACTTGCTGTTAAGGCTACCGGGCACCGGCAGTAAAGGTGGC  
GAGCTCGTAGGGCCCCGGGCCAAACGTGTTCCGAGCTACAGGTCCCCCCCCCTAGGCAGG  
GGCCTAGTTTGCGTGCGAATTCTAATCGTAGTTTCATTCCTATACACTAGCTGGTGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 677>:

**GNMIH66TR gnm\_677**

10 GGGGATATATGTAGCAAGGTAGTAAAGCCAAGTGCAGCCGTGAAGAGTGAGTTTAGTA  
AGAAATAAAGAGCAGGAGTGGGGACTGGGAATGCACAGAACTAGTGGGAAGGGGTGG  
GTAAGAAAATTGAAAGGGCTGGCCAAGGGATGGGTGCGAAAACGGAGGGCGGCCAGGTT  
GTGGTATTGACGGGAATAAAGGGTTAAAAAGTAGGGTTCTACTGGTGGGGCAAGGGGTG  
AGGAAACGGAGGCTGGCGATAAGGGTTCCAGTAAACTCTTAGAAGAAGAGGTAGGGAGA  
15 CTTGTAGTGAACTGGGAAGGGAGGAAAGAGGCAACAGAAGAGGTTCGGGGTGGGATAG  
GGCAGGGCAGGGCAGAGTAATACAGAGAAAAGCATGGGTAAAGATGGCGAAAAGTGCAA  
ATACGGAACCGGTGGCTGGGTGGGACT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 678>:

**GNMIH67TR gnm\_678**

20 AAATCTGAGTCTCAATAAAGTCAATAGGTACATTGGTTGCTTGTCTACCTGAGCGTGGGT  
GGAAAACAATGTCAACTCCCCGGAAGCCGGAGATTGAGGGCCAACATCAAGACATCTAG  
TAACCTAGTCCAGAGCGTCGTGCAACTTTCAGGGGTGGATGTAAATATTAAGTAGTATCA  
TTCAGGCAAATTAAGGATAACCAAGTAGGATCAGCTAAGATACTATATGCCTACCATAAA  
25 TTCATAATGTTTGTGCGGTTAAGAAGGGTCCCGGGGCTCTTGCTTCTGGAAGGGGAGCT  
TCGAGCAAACGTAGCTTCAGGCCCGGAGGATTCCTCGCTTGGAGCAGAGCCTCCGGGTAC  
CCTCGGTTCCCTCTCTCGGGTCCGTTGCAACTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 679>:

**GNMIH72TR gnm\_679**

30 GAATCGAGGACTACCGAACTTTTGTGGTTTTTCGTTCTACTCATTTCAGTCACTTCAGG  
CGCTGGTTGCTTCTCATTAGAGAATTTGGCTTCATCAAAGGGTCTGTAAATTCCTAGAC  
AGCTGCAGCGACGGTGTCTTCACAGTCATTATGATTATGGGCTTCGACTTCGTTAATGTC  
GTTCTAGACTGGATTCCGTTTCTCTAAGCTGGGTAATTCCGGCTTCGCTACGCCAAGAC  
AATATCTTGGGTTAAAGAGTCTTCTTCTGTTCCGGTGCTTTCAAACGTTCCGTCCTATA  
35 TTCGTAATTCGGGGGGTAAATCGCTGGCTAGCTCCTGCAAATTCGTCCTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 680>:

**GNMIH73TR gnm\_680**

40 ATTCCGGGCTTCTTCAGGGGATTCAGGGTGCTGGTGGGGGGCCGCCAAGATGCGTTCTGC  
CGACCTGGTCCCTGCGAGCAAAAATTTCTTCTGTAACCTTAACTCCAATACTTCTTCAA  
CTAGCCGGGGCAAGAGTGGGAGCTTACAGGGTCTGGCGGGGTACTACCGGGGGGCAGGGC  
GTCCTAGTGCAAATAATACTCCTCTTCATTAAGTTCCGGGGCTTCGGGATCTCAAGTTCA  
GACTTCGTGTTGTTGCTAAACAGATTCTGGGCTGTCGGCATCCAGCTAGAAGTTCACTGC

TGGGGTCACTCCGGAGACTGCTTATTCATATGAACTTCGACTTGATTCTGAATGGCnCTC  
CAAATAGGGGTTGCGGGCTTGGGAAATATC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 681>:

5 **GNMIH74TR gnm\_681**

CTCTTTCGGATTGCCTTCAGTCCGAGCCCTAAAAATGGTAACCCCTCGCGATTATAGTTGC  
AATCAGCAAAGGGAGTGTGGGCAACTGCCTCCTCAATCTTGCTTCTATCACGGTCATAGT  
AGTAAACCTAGTCAGAAGTTGCAAGGCCAATAATCTGGGTTCCGGCCAAAGTTACTACGGC  
TCTCATCAAAGTCAAGGCCGCTACCTCCTGGTTAATCACGGGAAGTGTCAAGGTTGT  
10 CTTCCTCAATGTATCTTTTCGAGGTGGTCTGTGCTCAGGAATAATGGTCCGAGGTACCAA  
AGTTGTAAGGTAGGCAGGCATGCCCTCTTCTCTTCAAATTCTCTCATCTCATTTCGATCG  
AGCCGTCACCTCCATCACTTCAACGGGGTTCCAGGGAGTGGTAAAAGTTAACTTAAGAGC  
CATTTCAA

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 682>:

**GNMIH77TR gnm\_682**

GTCTCCTCATAGTCAGCTTCGCCGAATCCCTCGACCGGGTTCCAGTCGAGGTTGGTATGG  
GCAAAAGTCGCAATCTCTGCCGAAGTATTACTAATCTTCTATTTATAGAAAATCTTATCA  
TTATCCGTGCTCCTATAATCTTGGGTGTCCTCCGCGGTCTTAAATTCAGAGATCTAAATA  
20 TAAATCCTACAAGTCTTCTTATCATTCTCTTTTCGAGGGCTGAACAAATGGGCAAGTTTCG  
ACCTCGACTTGGGTGCTGTTGTGCGGCATTAGCGTCTTCATTAGTAGTGGAAATCCTGCTA  
GTCTTAGAGGGCATCATATCGTGAATACTCTAAGTAGTACTCTCTTCAATCATAAACTTC  
TTACTCATCTAGACTTCAAATTCAACTGCTTTCACGGTCCTAGTAAAAGTAGTATAAGAA  
TTCTAAGTACTCGCT

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 683>:

**GNMIH78TR gnm\_683**

GTCCGATTTATCATTCTTCCCGAGCAACTTTCTTTGGAGGTTTTCGTGAGTCCAATATCT  
AATTGCTCCTAGGGTTCATTAGGTACCAAATGTGGAGCCAGGGGAAACATGTATCCTCG  
30 GGGGTCTTAGTCTCTGCCGCAGGAGCAGTCTGCCACAAAACAGCGGTTTTATGTTCAAC  
TTTCGTTTTCTCTTTAATACCTACTATAATAATACCTTCGAATTCTGGTCTTCAACTT  
CTCTGTCTCTTTCTAATCTTCAGGATTCGAATCATTCATATCCGGTAACTTCGTAGGCAG  
CAAAAACTCCTCATTGCTCTTCTGCAATTGCTGTAAAGATAAACTAATTCCTCATCAA  
AAGAAATTCGGTAGTTGCGGGCCTCATCTAAACAAGATATTGATCGTCTTTAAGTTCAA  
35 TGGGGCCATCTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 684>:

**GNMIH80TR gnm\_684**

AATTGTCACAGGTGACAGGTTTATGGGTCGCCCAAGCATCCGGTACGGCTAGGTTTCATAA  
40 TATTCTAAGTGGCAAATTTTGTCTTCGGAGAAACATAAAGTCTCCTATAAAAACTTCG  
TGCAAAGCTGCGGTCTCCGGGTACATCCTAGGGCTGTAAATGGGAGTACCTCGAAGCCT  
CTCGGGTCTTGGTGTCTTCATAGGTGTGCTATACTCGGGCTACATCCGGGTAGACTTGC  
TAATTCTCTTTATAGTCTCCCGCGACGCTTACTACTCGGTCTAGGGGGTATTAGTATGCC

TGGGACTCCTAATCCTAACGGTCTGCTTGATGGGTATGGTGCTGGGACATATTACTAAAC  
TAAACTCTAAGGTGGTCTTTAACTAGGTACAGACTTCCTTAGGGTGGTTCCTCTCCGAA  
GGGTCCTGGTCCTGGCTAACCATCAATTCATCCGGGCGTCCTCTCTAAACCTGTCAGCC  
TCCTCCGATTCTGGTCTCCCTGGTCTCC

5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 685>:

**GNMIH83TR gnm\_685**

AATCCGTA CTCTCGTCTCTAACTTCGTTCTCTCTTATCGTCCCCTGCGGCTATATGGT  
CATTCCTGTTTCATAAAAGTAGTGTTCCTCAGATTGGCTCTTAAAACTTCGTAATGGCCC  
10 TCATCTGGGACATCCTCGATTCCCTAGTTATCTGGTCTAAGATCCTCCTCCTCTCGTGCT  
GTTTCGTAGGTCTCCGTAAATACCTACCTCCAGGAAACGCGGCAATTAGTATCCTCAAAT  
ACCTCAGAGCCTCCAGGGGTCTTTCAGTATCTTAGGAGCCGACAGATTCTTGGCGTCTA  
ATACCGTCAAAGTTGCTCTCCCTCCGGATCTGTGGCGATACTGTCCCTAAGCGCCTCCC  
CTGCCGT CAGCGGCTTCAGCCTAAAAGTTTTCAAAGCTTGCAAATCCTCGAGTCCCTC  
15 AATGTCCAGGCTCGGGCACTACTCCTAAGTGCCAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 686>:

**GNMIH84TR gnm\_686**

GTCCGATTTCTCCATGGCTGGGGTTCTGGGCCTGAACGAGCGTGTGCGGGGAAACGCAGG  
20 AGGCAGAGGTGCTAGAGGTTCATCCATAGTAAGCTAGTATTGGCGATGGTTAAATTCCT  
ATGCTTAGGAATAAACCGAGTCTTAGCTTGCTTCTAGCAGCGGCGGTAGTTACGTCAGG  
ATTGATCCTAAAAAGATTGGTCTGCCAGACGACCTATTGGTGGCCGGAGCAAGTGTGGG  
TCTGTTAAGAGTTAAATCGGGTTGGCTACTGAGGCTTTTTCTGGGCCGATGCTTGGTTTCG  
TCGGGTGGTTTCCGGAACACGAGGGCTCTCGTTACCCTAAGAGCCGGCTTAGACAGGGG  
25 CTTGCGTTTTCCGCGGCCGTAACCGGGCATTGCTATTACGCGCCCGTAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 687>:

**GNMIH85TR gnm\_687**

GTCGTA CTGGATCTACTATTTACCCTTGGCTAGAAAGTTCCATGCCGAGCAAAAGCATGAG  
30 CAACAAAGTTTTGGCCAGCTCGGCCAACAGCAAAAGCGAGTGCAAGTACGGCATATAGTA  
CATAAATACTTGTAACATAAGATCCAATGGTAGCAAAAAGAGCAAAAGCAGGAGCAACAA  
AGTTTTGGCCAGCTCGGCCAACAGCAACAGCGAGTTCAAGTCCGGCATATAGTACATAAA  
TACTTGTAACATAAGATCCAATGGTAGCAAAAACGGCACATACGCACGGGCTAATTAACA  
CTTCTCTACTTCTCACTTTAACTTCTTATGTACTGCTAACTTTAACTTCTTCTCTAACT  
35

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 688>:

**GNMIH86TR gnm\_688**

TCATCAATTCTACATCGATAAAGACGATCCAATTCAGGTATGGCCGCTGGTACTATTGGA  
40 CACAAGTCGGTGTGGGCACTGAACCTCACTTAATCTTCGATGCCGGGGGCGGAAGTTATG  
AGATGGGTTCCATGGGTTCCCTAACTTTGCTTGCTTCTGCAAAGAGTGGGTCCTCCAGGCG  
CTGTTCTTAGAGTCTCGGATTCCGGCCTCCCCTCCGGGCAGCAACATCCTATAAAGCTTCG  
GGCAACCATCGGTACATCCTAGGGCGCTGCAGGTCTAGTAACAGGGAGGCGGGCCTGCTT  
GTCAGGGCCAGCGTCAGCTCCATCTGGGGCCGTAGATTAATCGGAATCACCGACGTTAGC

TTTTAGGGCCGCTCCGTCAGCCGCCGCTGCAACGTCTTCTTATAAATGGTCCGGGGTGTT  
AGTCCCTGGGCCGACTACGGCAAGGGGTCTGGGCACGGGCATCCnCTCCGGGGCTTC  
GCTAGCCG

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 689>:

**GNMIH87TR gnm\_689**

AAAGAATAACCTTCGTGCAAAGTGCAGGGGTAATGGGGGTACATCCTTGGCTAATGGCCT  
AGGGTAGGTCGATCCGGATCTTCTGAAACCTCCTGAATTCGATTGATCACTGTGCAGAAA  
AAGCAGGGAGCCAACTAACTGCGACTTGTAGCAAATTGAAAAGTTAGCTCGAACCGCGC  
10 GCTGGTACTCTCTATCTCGGTTAGCAGGGATCCTGTAAGCTTCGTGCAAACTGTATAAG  
GGGGTACATCCTAGGGCGGAGCTAACGAAAGAGGTACAGGTGTGCGAGATGCGGTACATC  
TCGCTCGCTGCAACATATTGnTGATCTGGCTGCTACAATGGGTCCCCGAAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 690>:

15 **GNMIH88TR gnm\_690**

TAGAACCGATTTTGCTGGTGTCAAGAAGGGTGATTCATGGGGGCAGCTGGGTAAGACAAG  
GTAGCTTCCGACACACAAGAAGACCTGGATTAAAACACCTTATTACGGGAAGGAAGCCCG  
ACGGAGGATAGGTCTTACACTTCAGGGGAGAGCTGCCAAGAGTTAGATCGGCGAAGTCGA  
AACTACTGCTATCACACAAACCAGATGCAGAAAAAGTAGATTGGATGTGTGATCGAGG  
20 TGGGAAGGGAAGTGTTAGTGGTGGTAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 691>:

**GNMIH89TR gnm\_691**

AAAACGACCAGCTTAGGGCTATAATAACTAAATGCGTTATAAAAAATGAGGTGGTAGCAAA  
25 AATAAGTTATACCGAGCTATAAAACCCAAGTTCTTGGATTTCATATTTGAAAAAACA  
GTTGCAGCAGGGGAAAAGAAAAAACCGATTTATACAAAAGGGTGTTGAGTAAGAGAA  
GTAGTCGGGGAGGAGGAAAGGGGAGAGGGGAGGAGAATTTGGTACTAAAATCCGATAC  
TAAACTCGAAACCTAGTGGGGTAAAAAAGGAAAAACGGAACCAGGCGGAAATAACGCGAA  
AGTCCCGACACGGCTCCGTCAGAA

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 692>:

**GNMIH90TR gnm\_692**

TCCGGGGCTGACTAGGGTCCGTGGAGGGCTCTAGCCTGGGGGTCTCCCGGTACGCTGG  
TCAGAAACCTGGTCTCTGCCAACAGCTCTGTCTCGAGGGCACTACTCTCTCTATGGG  
35 GCTTTACGGGCATAGTCGACGCCGTCACTTCTTATACTACTCCACTAACCTCATAGTAA  
GTAGACAAAAAGTGGTCTTCACCAGCGAGGGCTGGGGCTGCAATCAACCCCTAACTAGCC  
GTACATTTCGGCTTCAGCCTGGTCTCTCTGGGGCTTGCGGTTGGCGGCCGCCTCCTCCCCG  
GGGTGAATATGGCCATCGCCGGCAATAAGGTGGGGGTAGATCCGATACTATTACTTCCT  
TTTCATTCTCTAGAATCCCAGTCTTCCCTAGTACTGCTCCAGCCCCCAACTCGGTCGTAA  
40 GCGAGGTGGCAGCAGAGGCCATGT



The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 693>:

**GNMIH91TR gnm\_693**

5 GGT TTGCCGGCTACCTCCGAGGTCTCTCCTGCCGCAATAGGTCCGACCCGGTCGGTATC  
TTGGGCCGCAGCACCGTCGTTATTAAGATCTTCACCGACCTGGCGGTCTCCTCTACTACC  
ACTCCCGTGGCGTTCTCTATAGAGGCTATCCTCGGTCTCTTGCTTAAGAAATTGGCTCTC  
CTCCTGGTGGTCGACTTCCGTCGATTCCGGCAGGGCTTTCCTCAAAAATAAGTTCCTAAGC  
CGGGGCCGGGTACCTGGCTGGGCACCGGCTCTCCAGTCAACGACGTCGAGGTCAGCCTC  
GACTTCCCCTCTACCAGAGCCCTCGGGGTTAAATTTGGGTAGATGCTCCATCACTCTCAGG  
10 GCCAGCGTCAATCCTACCTGCCGCCACAGATTCGGACCAGACGAGGTGCTCGCCGTACA  
TTGGTCCCGGTACCAAAAAGTGCCGCCTGCGTGGGCGTCCTCAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 694>:

**GNMIH92TR gnm\_694**

15 CCTATCTTGGGTAGTCTAGGGTTGGTGTTCTTATCTCTATACCGTCCAAGTTCATTTCG  
AGTTTTTGTCTAAGATCCTGCGTCCCGGGCTACTCGGGTGGCGGTAATTCTATTGTCTT  
CCTCTCCAGAAGCTCCGCCAGAGCCTGTGGCCCAATATTTGGCACCAGGGGGAGTACAGA  
CGGAGTAACCTCGGCATTTCTTGTAGCGGTCTAATTTTGGTAACGTCATTCAAGTGGG  
CTGGAGGGTTCGCTCGGGGTAGTGAGAAGTTCAATAGTTCGGGTACTAAAACTCTCTTTC  
20 TTCTCTTGTGCAATCCGGGATGGGAAAATCCAAGGGGAGAGGAAAATCTATGTTCTA  
AACTAGGGGTTTGCTCTTGCGGTTTACTTCCTACCTCTACAATCGAAGTAACGGGCAAGG  
CAGGGGCTTCGGGTCTCTCCAACGAACATCCTACTTCCCTTTAACGTTTAAATCTAAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 695>:

**GNMIH95TR gnm\_695**

25 CTCAAAGATAGAGGAAAAATGTAAGCCACGCAGCCTAGAGGGACCAGACAGAGATGCAAT  
CAACAAAAGAAAGGGCGGTGGGGTTGTAGCGGGACCCACGCAGGATAAAAGCAAAGTC  
TGCAGCGCAGGAGAGTCCAGCTGCGGTAACCTATTGCAAAAGACAATGGGGGGTAACTGC  
TTGGGCGACGGAATCCACAAAGGGACATAAAGTTTCAGGCTCTATGGGGAATATAGTGGG  
30 TGGAGGCTCCAGACAAGATGAACGAAGCAGAAACAGCTGAGGCCGAGGGGAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 696>:

**GNMIJ55TF gnm\_696**

35 CCGTCCAACTCGCTCAATCAGGCTGGCACACGTGATCGTCTGCGTGCTGCGCTGGAAGCG  
GCCGGTCATGCGCGACAATTACAGGTTGAGCATGGGCCGGTGACGGATAGTCGCGCCCGC  
CGAATGGCCCTGGTAAGAAAAGCCAGCCAGTTGCTGGCCGAGGACAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 697>:

**gnm\_697**

40 AAATCGAAATAAACCGTGTTGTAACGGGAGACCGATGCCGTCATTGCGCGCAGGCGGGA

ATCTAGACCATTGGACACCGGCAATATTCAAAGATTATCTGAAAGTCCGAGATTCTrGAT  
TCCCACTTTCGTGGGAATGACGGGATGTAGGTTCGTGGGAATGACGCGGTGCAGGTTTCC  
GTGCGGATGATTTCGTCATTCCCGCGCAGGCGGGAATCTAGACCTTAGAACAACAGCAAT  
ATTCAAAGGTTAGCTGAAGCTTTAGAGATTCTGGATTCCCACTTTCGTGGGAATGACGGG  
5 ATTTGAGATTGCGGCATTTATCGGAAAAACAGCAACCGCTCCGCCGTCATTCCCGCGCA  
GGCGGGAATCCAGACCTTGGGATAACAGTAATATTCAAAGATT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 698>:

**GNMIK41TF gnm\_698**

10 CCGAGTCCGTGCCGTCTGAAGATGCTTTGGGCAAATGGTGGAAAACCATAGAGGAATGGC  
GTTCCCGAGATTGCTTGTGGTTTGACAACGGCAGCGAAATTATCAAGCCACAATATGTGA  
TTCAGAAGCTTGCCGAGATTACCGGCAATTCCGGCAATCATCACATCGGATGTAGGGCAGC  
ATCAAATGTTTGGCGCTCAATATTATCCCTTCGAACGTCCGCGCCAATGGCTCAATTCGG  
GCGGTTTGGGTCCGCAACACAGGCGCCTCTTCAAACGTCAGGTCCCGAGCCGCTGCTGC  
15 ATGGCTTTTTCGAGTTTGGCGATTTCGTTAATC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 699>:

**GNMIK42TF gnm\_699**

CCGTGGTGTGACTGCGTACCTTTTGTATAATGGGTCAACGACTTACATTACGTAGCGAGC  
20 TTAACCGAATAGGGGAGGCGTAGGGAAACCGAGTCTTAATAGGGCGATGAGTTGCTGGGT  
GTAGACCCGAAACCGAGTGATCTATCCATGGCCAGGTTGAAGGTGCCGTAAACAGGTACTG  
GAGGACCGAACCACGCGATGTTGCAAAATGCGGGGATGAGCACGATGGGCGTGGGTCTGC  
CTTATGCGATTGGTGCAAACTTGCCGCCCGGATCAAGACGTATTCTGTATCACCGGCG  
ACG

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 700>:

**GNMIK48TF gnm\_700**

CCGGTTTCGGTTTTTTCCGATAAATTCCTGTTGCGTTGCGTTTTTGGATTCCCGCTTTTG  
CGGGAATGACGGTCGGTGGGGTTTCGGTTTTTTCCGATAAAGTCCTGCTGCGTTGTGTTG  
30 CTGGATTCCCGCCTGCGCGGGAATGACAGCCGCCGACGGGAAACGACCATAACACAATTA  
TTGACAACCCCATTTATTGCGAAAGTCAGCCTAGGAGAATCCTCTGTAAAACCGGTCTGA  
GTCTTCTTTTCCCCGTAATCAATAATTTATCCGCCGCTCTTTACCACCAAATTCATT  
ACAATTTGTAAAAATCGTGTCGCC

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 701>:

**GNMIL13TFB gnm\_701**

CGTCCGACCAACCGTTCAAACCTTTCATTTTACCCGACCACGCAAGCCGCCGAACAAAA  
ACAAGGGGCTGTCTAGATAACTAGGACAACTTGATTTTACTAATTGTTTTAAACGGA  
CCAGGACTTTTAATTTAATGGTGGTTAAAGGCATTTGGAATTCTTTAAATCAAGTTAA  
40 AA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 702>:

**GNMIL82TFB gnm\_702**

5 CCCGACAAATTTTGGCGCATGGCTTTGATGCGGCCGCGCATTCATCGAGTTCGGCAAT  
CCATTGTGCTTCAAATCATCATTTTCAACATCGTCGCAATGGTGTTCGCACCGTGTGA  
AGCCGGGTTGGAATACAAGGTACGGATGATGGTTTTGACTTGGCTGTGGGCGCGGGCTGC  
TGTTTCTTCATCTTCGGCCACCAAGTGAACGCGCCGACGCGCTCGTTGTACATACCGAA  
GTTTTTGAATAAGAGCTGTCTATCAGCAATTCTGTATTGTGTTTTATGATCACTCGCAA  
GCCGTTTGCATCTTCTTCAAACCAT

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 703>:

**GNMIM22TRB gnm\_703**

15 CGGTTACGGGCGCGAATTGTCCGCATTCCGGCTGTACGAGTTCGTCAACGTCAACACCTA  
CTGGGAGAAATGACACACCCCGTGCCGCTTCATACGGTATCGGGTTTGCCTAGAGCCGA  
TTAACGGCAGTATTTGTTTACGGCGTTATTGTATTTCCGAATCAACTCATCCTTGTTTTT  
TGCAATTTGAATTTCCACCGCCTTCAGGTTCAATTTTGAAATCCGGCAGTTTTCTTCTTT  
GGTCTGCCGTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 704>:

20 **GNMIP07TF gnm\_704**

CCGCAAATACAACCCGATTTTCGACTGGTCGGAACACGACGTGTGGGCATACATCCTCGC  
CAACAATGTGCCTTACAACGATTTGCCACGTAAGGATCCCTTACCGAGAATGCCGCAAAA  
CACATCAATGACTATCTCGCCAAACGCGGCAAAGGCTTGGGCGTACGCTTGGGTGTGAAA  
25 ACCAGCGGCTGCTCGGGGATGGCGTACAACCTTGAATTTGTGACGAAGCCGATGGCGAC  
GACCTGATTTTTCGAAGGACACGGCGCGCATTATATCGATCCGAAAAGCCTGGTTTAT  
CTGGATGGCACGCAAGTCGATTACACCAAAGAAGGTTTGCAGGAAGGATTCAAATTTGAA  
AACCCCAATGTCAAAGACTCCTGCGGCTGCGGCGAAAGCTTCCACGTTTAAGGCATAAAA  
ACGGCGGGACCGTATCAAAACCGTCCCGCCATTTTACGCTTACTGCCTGTTGTAGCTGC  
CTTTGCCTTTCTTTTCCGTTCCACCTTGTCGGGAACAAAT

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 705>:

**GNMIP26TR gnm\_705**

35 GACGTCGAGGTTGATGGAGTGGCTGTACCCGACCAGCACCAGAACCGGTGCGGTTTCACC  
GACGACGCGCGCGATGGACAACAAGATGCCTGACACGATGCCCGGCATCGCGATCGGGGC  
GACGATCCGCACGATCGTCATCCATTTTCGGAACGCCTAACGCGTAGCTGGCTTCTCGCAG  
TTCATCGGGCACCAACCTGAGCATCTCCTGCCTGCCCGAACCACCACCGGCAACATCAG  
CAGGACCAACGCCAACGCCACGGCAAAGGCGCTCTGCTGAAATCCTATGGTGGCGATCCA  
CAGGCTGAAGACGAATAACGCCGCCACGATAGAGGGCACGCCGGC

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 706>:

**GNMIP64TR gnm\_706**

ATGGGCGTGGCTTTGGCGCGGGCGTGCCGTGCCGCCGGTGCAGAAGTCAGCCTGATTAC  
GGACAGCTTCAAACCGCGCTGCCTTTCGGCATATCCGATACGGTTCAAGCCGTCAGTGCC  
GAAAAATATGCATCGCGCAGTGCATCGTTAATCGACAAACAAGATGCTTTTATTTCTGTT  
5 GCGCCGCTCTCAGACTATAGGGTTAAGAGGAGGAGTACTCAGAAATTCAGGAAAGATAGA  
ACTGCCAAACCGTTATCCATCGAATTGGCTGAGAACCCCGAGATTTTGGCTTCTATTGCC  
TCATTAGCGAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 707>:

**GNMIP74TR gnm\_707**

AGTGGGTGTCGATATTTACAACCTGGGTAACCTCACCCGTTCCAACCAGTCTAGCAATAT  
CAATCATCGTCTCTGCCGTCAAAGCCGGCGATGTTTTGCAACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 708>:

**GNMIQ34TF gnm\_708**

CCTGTCTCTTCGGCATCGCCAAAGAAGGCTCGCTCAAACGCGTCATTACCGGCGAAGAC  
GAGGGAACGCTGGTTCACGTCTGATTGACCATAGTGTGGCAGATATAGTCGCATATGGG  
CTTCAGACAGCCATTTATTATATGGAGATTATAGTGGACATCCCATGGCATCGACATCAC  
CTCTGGTGGCAGCATCCACGCCTACCCACCGCATTGATGCCCCCAAAGGCAGCACTAA  
20 CATCGAGGCTCCGGCGGAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 709>:

**GNMIQ67TF gnm\_709**

AAACTGACGTTTGTCTTTCCAGGATGAGGTAGAACCATGATTTATCTGTTTACAGGAAAC  
25 ATGGGGACAGGCAAAACCTCCCGCGTCTCTATGATTTTGAACAACGAACACGGATTG  
TTCAAATGAAATTGGCACACGGCACATATGTAGACAGACCGCTTTACTTCTGCCATATC  
GACGGATTGGATAAACCGCAGTTGAAAGCCCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 710>:

**GNMIW65TR gnm\_710**

TCCATCGGGTCGAGCGACTCGTCCAACCTATGCCGCCTTCCCTCCGCTACGGTATCCGTACC  
AGCCTGCAGTCCAAACATGTCTTGCAAACTTGCGGCTTCCGTTGCACAAGCCGATAACC  
CCTTCAGTTATAGTGGACAGCAACCGCTTTTGAAGACAGCAGTGATATTGTGTTGGAT  
TTTCCGTTTAAAGATTGTGTGTTAAATGGCGGACAAAGCACCGAGGAAGGCGAAGAAATT  
35 TATTTTAAACGAATAACAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAG  
CCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAG  
AGAGAGACAAGAAATCTTTTTTAATCAAACCTTGCTTTTGATGAAATTGATCGGCTTTT  
TGACGCACAAGCATTCTCAAATCTCTCGCTATACCGCAGACGGCAAGCAAGCCGTTTG  
CGCAAATCAAACGACAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 711>:

**gnm\_711**

5 CAGTTGGCATTGTAGATAATTTGATTACAAATGGGCGGAACTGGTTCGAACTGGGGC  
AAAAAATCACCAATGyGACTTTCAACCGAyTGGACGCAAACGGCTAATGAAGGTATTGCA  
CTGACACCATCCCAAGTAGCACAACTAAAAAAGAACGCTTTAGTTTCCCTTTCTGATAAA  
GCTAAAGCAGCTATTGACGCCGCCCGGACCGCATTGCCGTGCTTGATGCnTACACGGGG  
CAGGATTCCAACACACTCTATTACATGAGCGAGGAAGATGCGCTTAATATCGTCAAAGTA  
ACCAACGATACATACGACCATCTCGCCAAAAACATCTACCAAACCTGTTGTTCCAAACC  
10 CGTTTGCAGCCATATTTGAATCAAATCAGTTTCAAATGGAAATGATACGTTCACTTTG  
GATTTTAGTGGTCTTGTTCAGCATTTAACCATGTCAAAGAAAGTAATCCGCAGTGGTAC  
CGAGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 712>:

15 **GNMIX74TR gnm\_712**

TAATGCCTGTAAATCCATGTCTTTAACGGCAGCTCTGGCAGAAGCGGCCACAAGTTCTTG  
TTCGACCGCAAAGCGTTTACCTCCGCCATGCGATGGAATACCTGTCAGTGTCCCGCAGGC  
GGATAAAATAAAACTGAAAAAGAATAGGTATCAGCAGCCGTGCTTGATAGATTTTCT  
CCTTTGATGAAAAACAAATTGTATCAAAATTGTAAATATAGTGGATTATCnGTCCGGCGTA  
20 ACGCTATTGGACGGTTCCTCGTCATGCCCCGAATCCAGTGAAGGAAATTGAAGTGGCCCGC  
GTGTTACAATATATCGGACTGCAAAGCGGTTTCGACCACGGAGGCAGCCGTCCGTTTTATG  
CTTTAGTGTATGCGGCAGCAGGTTTTTTGGGACGGCAAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 713>:

25 **gnm\_713**

CGTACGGCTTTCTCTAAAAATACCTAAACCGTCATTCCCACGAACCTACATCCCGTCATT  
CCCACGAAAGTGGGAATCCAGGACGAAAAATCTCAAGAAACCTTTTTACCCGATAAGTTT  
CCGTGCCGACAGACCTGGATTCCCGCCTGCGCGGGAATGACGAAGCTATCCATACGGAAA  
30 CCTGCACCGCGTCATTCCCGCGAAAGTGGGAATCCAGAACGTAAATCTCAAGAAACCGT  
TTTCCCGATAAGTTTCCGTACCAACAAGGCTGGATTCCCGCCTGCGCGGGAATGACGAAG  
CCATCCGCACGGAACCTGCCGCGGGCATTTCGGATATCGTGGTTCTGGCAGCTTGGCGG  
CAGGATGCGGAAGACTTCAACGAAGCCTATTGCCGCCATGTACGCCGCAAAATGAACATA  
CCGGAACATTTGGCATATTTTGCCGGAGAGCCGATTATGATCAGGCAGAACGACTACGCG  
CTTGAAGTGTTCACGGCGACATCGGACTGATTATGGAAGATGTCGGACGGCAGGGCAGC  
35 CTGCGCGCTATTTTGCCGATGCGGACGGATTTAAAAAGGTAGCGGTAAGCTGCCTGCCC  
GAATTTGAACCCGATTCGCCATGACCGTCCACAAAAGCCAAGGTTTCGGAATACCGGGAA  
GTATGGCTGCTGCCGCCTTCCGCCGCACCTTCGGACGAAGGGGACGATGCATTGTCCGGA  
TTGAGTAAGGAGCTGTTATATACCGCCATTACCCGCGCGAGAGAGAAGTTCGTATTCTTC  
GGCGGGGAAGAAGCCTTCCGGCAAGCTGCCGCCACCGTCAAAACGCGTCAGACGGCATTG  
40 GGCAGTATGCTCGAGCGGTATTTTCAAGAATAATCCGCCCGAATGCCGCGCCGCCGCG  
CCCTTATGCCTTTTTTCAAACGGTATAGGAAAGTGGTTTCCCGGGTTCGCGCAAAAGCAAG  
CGGATCGCTCGGATTGCGGCTTTTTTGTGCTTCGGCTTGTTTTTCATCATATCGGCAAC  
ACGCAAACCCGCTGAGCAAATGCCTTATCCATGAAAATCGGATG

45 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 714>:

**GNMJD95TF gnm\_714**

CGCTGCGGCATAACCTTCCGCCTTGTCGACGGCAGTATAGGCAGCCGTGTTGACAATGGC  
GTCGGGTTGGAACTTTTGACCATGTTGCAGACGGCATCGGCATCGGTAATGTCTAGGGA  
TGCGGAATCCGTGCAATGGTTTCCCAGTCTTCCGGAAGACGGTCGCGCAGGCAGCGTGC  
5 CAGTTGGCTTTTCGAGCCTGTCAATAGGATTCTCATGAGGTATTTTCTTTGGTAAAAGTG  
TATTGTAGGACTTGCTGTCGGTATTATAGTGCCAAAATTTTGCCGCCTGTCGGGCAACCA  
ATAAATCGACTTTGCCCAGTTTGCGGCGAGCGGTAACAGCATGCAAAGTGGTATGATTCA  
ACTGTTTGTGTCGTGTTTCGACAATAATCAATACACTCATTTCAGCCTCCTCAAATCACT  
TTGGCTTCGTTTTTCAATTTTTCAACCAATTCGGCAACGCTTGCTACTTTTACGCCTGCC  
10 TGACGCGCCTTAGGTTTCGGCAAATTTACCGTTTTCAAACGAGGTGAAATGTCGGCAACC  
AAATCGTCAGGAGTCAGTTTTTCCAAAGGTTTTTCTTTGCCGCCATGATATTGGGGAGT  
TTGACAAAGCGCGGGTCGTTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 715>:

**GNMJE78TF gnm\_715**

GGGTACTAACCGATGACTTTGACGAACGAAGCGCGTTCGCCCCAAGCGTTCCAATGCCGTC  
TGAATCTGCGCGTACCGGCGGTTCCTTCGATGTCGATGAAGAACAGGTATTTCCACAAA  
ACGGATTGCTCGGACGGCTCTCAGACTAGGTCATGGAATACCCGACTCCGTGAG

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 716>:

**GNMJE88TF gnm\_716**

AACCGCCCCAAGCCATGATTGCCAAACACATCGACCGCTTCCCGCTATTGAAGTTGGACCA  
GGTGATTGATTGGCAGTCGATCGAACAATACCTGAACCGTCAAAAAACCGTTACCTCCG  
AGACCACCGCGGTGTCGCCGATCGTCCACGTGGTGTCCATGTTCAAAGCCGTTCTGCTAG  
25 GACAATGGCACAACCTCTCCGATC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 717>:

**GNMJH15TF gnm\_717**

CCGCATAATCGAGTGTACCCATTTCTGCTTGCCATCGGTTTCAAACCCGCAAGACAAGG  
30 GCGAACCGCTCAAAGTCGCCGCTTCACATCTTCTGCAGCCGCCGCCGACATGAATG  
TCTATCTTTTACGGCTGGCAACTGATTGACGGTATGGTAAACGTCTGACGCATCGTCCACG  
ACCACTAAAGCGAATGTTGCGGCTTCGGCGGCACATTCTCCGTCAAACAAGCCGATATTT  
CCGGC

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 718>:

**GNMJJ79TR gnm\_718**

GTATGGGTTTTCCGGCGCGGGGAAAACGTCAGGCATCGCGCCGTATCGAAATAACCGGAC  
CCGCAGACCCAACGGCAGTCTGAACGACGACCTCGTCCAACAAAGCCAGGTCTTCTGTC  
AAAGCGCGGACATTGTTTCAGCACATGCCGCCGAAATGGGGAATCTGCGCCGAAGGTTTCG  
40 GGCACAGTACGGTGCCGGTAGCGGTTTCGCAAATAAGCCGTATCGGTATTGCTTTTCAGCC  
TCGATATTCCGGCACAGCGTGTTTTTGGGCATAA

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 719>:

**GNMJJ84TF gnm\_719**

5 ATTTTGCTCAATATTAGGAAGGTTTTAAGCAATTGAAAATTTGTTGGCGCATTTTTATGC  
GTCAAATTTTCGTTAACAGACTAGTTTTGCAAAGGTCTCTATATTGTTTCGATATTTTGAA  
GACATCGATTTTTTAGGGAAACGATTGTTTACGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 720>:

**GNMJM49TR gnm\_720**

10 CGTTAAACGACGCAGCCGGCACTGCGCATTAAAAACGTGCCGATTGTAAACGCCGCCAAT  
ACCGCCAAATCGGGAATGCCGTCTGAAGCCAGCCACAATGCCAGTAGGTCGGCCACAGT  
AAAAGCAGCGTCCCAATGGGCTTGTCCGCCCGCATCAGGCGCAGGTACACATCCAAACGG  
TCGGACAGGCGTAAAAATAAGGGGATTTAGGATTCATATTGCCGCGCAGCTTGAAAAA  
CGGTATTTTAGCCGAGAAAACGTTTCAGTTCGGGCAGAAAATAGTCGGTAAACACGATTT  
15 CGTCAACGTGCCCGCCGGCTCGGTAATGCTGCGCGTGTTCATCGAAAATATCCTTGATCGC  
GC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 721>:

**GNMJN57TR gnm\_721**

20 CGGCTGCTTCTATCTTTGATGCTCCACCATAAAGGTATTGCCCCGAAACGGCGGATGGAG  
GTTTTGTTTTCTGCCGCCGCCGTGATCGCTTCGTGGTTCGCCAAACGCGCCTGTTGCA  
GCCTCATTTGCGCATAATCCTGCTCCAAGGCGATTTCCTGTATTTTCGCCTTATCCAAAG  
CTGTGATATTGAGCCTGTACTGGTTTTGCTGCATCACAACGGCAAAGCGGCAACGCACA  
CCGCATCCAGCAGAAGGAAATTCACTTTGTTCAT

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 722>:

**GNMJO71TR gnm\_722**

30 CCCATACTATATGTCTTAAGTGAGGAATACATGGTTCATTGATGAACCCAAATTTGACCC  
TTGTAGCAGATGCTGTCAGTGCCCCACCCATATGTTCTTTGCCTGTCAGACAACGATACA  
GCCCTTGTCCGTACGAATATCGTCTATGCCGCCATCCACAACCTCGGCGGTATGGCGGGG  
CGCAACCGCAAAGTTCGGATTCCGCAACGGGAATTTTTGACGCTGACGGACGACGACAAA  
CAGGCTTTGATGGACGATGTGCAGGATTATTTTTCGGGTCTGATACCGTGAATTTATAAA  
ACCTCAAAAACGCGCTTTTTAGCGCGTTTTTTTATGCGGGTAATACAAACCCCTGCCCA  
AGATATAAAAAATCAATCCTAGACGCTTCGAAAAAGCCCCTGAAAACGATTAATTGTGTAT  
35 CGCGCGGACAGGTTTTAAAAAATGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 723>:

**GNMJQ51TF gnm\_723**

40 GCTTCATCGTCTTCATCCCAATCTGACCCCAAACATTGCGCTTTTGGTTTGACGTGATGA  
CAGGTAAACATACCTTTAATTCGGTCTTCACGGGCTTGGTTCGGGCTGTATTGACGTTG

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AAAAAGTCATTTGCGATGTCAACGCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 724>:**gnm\_724**

5 CAATCCGTTAGCGAGGTGCCGCCGGCTTCCATTCAAGTTCGAGGTGGCCCCGGCTCCATGCA  
CCGCGACGCAACGCGGGGAGGCAGACAAGGTATAGGGCGGCGCTACAATCCATGCCAAC  
CCGTTCCATGTGCTCGCCGAGGCGGCATAAATCGCCGTGACGATCAGCGGTCCAATGATC  
GAAGTTAGGCTGGTAAGAGCCGCGAGCGATCCTTGAAGCTGTCCCTGATGGTCGTCATCT  
10 ACCTGCCTGGACAGCATGGCCTGCAACGCGGGCATCCCGATGCCGCCGAAGCGAGAAGA  
ATG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 725>:**GNMJV83TR gnm\_725**

TTTTAAATGGAAATTTGAACTTTTATCTCACTGTTGTTAAAACGCCGTTTCGTACCCCTTT  
15 AAATACAGCTCAAAATGCGCTTTGGGAATGCCGTCAAACCTGCGTAAATGACGTTTGGCC  
CGGTTCCAAAAGTTCTCAATTCCATTGATATGGTTTTGTCGTTCAAGCAAAATAACTTTCA  
TCTGCTTCTACTTCGCCATCAAACATTCCAAATGCGGACTGTTTGTATAAATAAGTAAT  
CGTAAACGATGAAAATAATAGGCTGCGGTACTTTTATTAACGCCTACTAACTCTGCTGTC  
20 GTTCTTGCAATTACACCTGCGACAAACAGTTCAATGAGTTTATTTGTTTATACCGGCTTA  
GACGACTTTTTCTCATAGGGGCAACTCTAACTTAATTTGAATTTCCCTAGTTATCCCTAA  
AGGGGGGAAACCCAAAAGGGGGCCCCCCCCCCCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 726>:**GNMJW65TF gnm\_726**

25 CGAATTTGTCGGCGGGCGCGCGCAAAATCATACTTTGCAAAATTTAACAATTTGCAGGG  
GCAGAAAACAGGAAGCTTTCCTTTTTCGTCGGAAAATCCTTATTTACCGCCTTGTAGCC  
GGAGCCGGTCAAAAGGCAAAAATTTACCCGTTTTTTATCGGTAAAGAATTATCAGATAA  
AACAAATATTATAGGAAAAATACGACAGGCGGGTTTTATCGCGCATTGCCTGAAACTGAA  
AAATACAACCGTTGTCAAGACTGGAGAAAATGCCAAAATCCACTATATTGTCTGCCTTA  
30 ATTTATTTGAAAAGACTGTGTCTTGAATATCAAGAGTGGAGAGGAAGCGATGAATACAC  
CGACTGATTTGAAAGTAACCAAACGAGACGGAAGATTAGAAGCCATTCAATTTGGATAAGA  
TTCACCGTGTGTCCTTGGGCGCGGACGGATTGGAAAATGTTTCCGTGTGCGAGGTGCG  
AGTTGAAATCGCACATCCAGTTCTACAACGGCATCCGCACCGACGACATCCACGAnACCA  
TCATCAAAGCCGCTGCCGATTTAATTTGGAAGATACCCCGACGGTGATGCTGCCAACT  
35 TACTGATTTAGTGTATGATGGTGTGTTTGGAGGTGCTCCAGTGGCTTCTGTTTCTATCAGC  
TGTCCTCCTGTTTCACTACTGACGGnGTGGTGCCTAACGGCAAAAGCACCGCCGACAT  
CAGCGCTATCTCTGCTCTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 727>:**GNMJY95TF gnm\_727**

CTAGAGATCCCTGGAAAAACACACAGCCGGCACACAGACTATCTCGCTACCGCGACGCG  
ATTGCCAACAACTGCTGGAAGTCCGTTTCGCCACTCGGCAAATCGACAGCCTCAGCAGC  
AGCCTGCGCGGGAAAGTAGAAAACATCCGCAGACTCGAACGCGAAATCCGCGACATCTGC



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CTCGACCGCGTCCATATGGGACGCGACTACTTCATCCAAAACCTCCTGCCCGAAATCACC  
AATCTAGAATGGATTGAAGAAGAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 728>:

5 **GNMKA52TF gnm\_728**

GGTCAGCCCGGCAAGGGTCGAATATCTGATCGATATGCCGATGGAACGTGTCAGAAAGGC  
GGAGGGCGGCGTTTTGTATGTCGGCGACATCGCCAGTACAGCCGCAACATCCAAGCCGG  
TATTGCCTTTATTGTGCGAAAGGCGGAACACCGCCGCGTCAGGGTGGTCGCATCGGGCAG  
CAGGGCGGCAGGTTTCAGACCGCATTGCCTGCGAGAAAGGTGGCATGATTGCTGTCGGCAT  
10 CGGTCGTCCGTATTCCGCGCGCTGCGTATGCAGCATGAAGACATTCCCTTCCTGATACAGG  
GGATTGCCTGCAATGTGGCGGAAAGCCAAAAGATTGCGCCTGCCTCATTCAGTGAATAGG  
CACTTGTGCGATTGCACACGTTCAATGGCTGGCGTTCTATTGACCAACTGCAAAGCGTC  
GTTGCAACGCTGTTGTTG

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 729>:

**gnm\_729**

CATTTCCATACCTATGAAATCAATAGCAGGATTTAAGTTCAAGTTCAGCTCCAGATCTTC  
TAAGCTGGAGGACAAAAAGGCGAAAAGATATGTACTGGTTTCGCCTCTGTTTGCTTCTT  
GCTGATCAAGAACCTCCCCGATGTATTGCAAAACAAATGTGCCACGCAGTATATGTTTAC  
20 AAGCTCGCAATCCCCATCCCTGTTGATCAATCAGTTGGATATTGGAATTGAATCAAGACA  
AATGGGTAAAGACAATAACTCAAAAAGGATCACACCTTGCTTTCAGTTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 730>:

**gnm\_730**

25 AAGGGGATACTAGAGCATACTCAGTGaAGAAGCAAAGAAAAATCAACAGGTTTCAGTAGAA  
AAAAATCGAAACTGGGATCGTAAGTTTACCAGGAATTGACGAAACCCGCGAATCTCGTTA  
CTCTCTTCGAAAGCCCCAAACAGTCTTGTGTCAGTTGCTCAAGCTCCGTGTTTCC  
TGAGAAAAAACCCATAACCTAATCAACAACCAATTGTTAAAAATCCATCTTTATGAGAA  
ACAAAGAGAAGCTAAATCAGAGAGGAAAGTTGGTTCATACCTCTGAGTCTGACCAGAGAC  
30 GACGGTAGCAAAAACGGAATTTGATGCGAGAAAGCCGAGAGGGTTTTTCTTATTTATTT  
TTTAGTCCTTTAAACCGACCTTTGACAAAAAAAACGACTTTGTGAAAACGGGCCGGTT  
CATATTGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 731>:

35 **GNMKV51TF gnm\_731**

TCGTGGTCGAACCCTACATCATCCGCCATGACGTTCCGATCGGTGAACGCAGCAACTACC  
ACCTCTCCAGACATATGAACTTTATACGGCTTGGGCGGCTGCGGAGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 732>:

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**GNMKY49TF gnm\_732**

5 CAAAATCGAAGGCGGGTTTGTCTGTTACTCGGCGTAACGCATAGCGACACAGAAAAAGA  
TGCACGCTATATCGCCGACAAAATCGCCCATTTGCGCGTGTTTGAAGACGAAGCGGGCAA  
GCTGAACCTGTCTTTGAAAGATGTCGGCGGCGCGGTGCTGCTGGTGTGCGAGTTTACGCT  
10 TTATGCCGACGCGGCAAGCGGGCGGCGCCTTCGTTTTCCCAAGCCGCACCTGCAGAACA  
GGCGCAGCAGCTTTACCTGCGAACGGCGGAACGTGTTGCGCGGACACGGGATTCATGTCGA  
AACAGGGCGTTTCCGCACGCATATGCATGTCTCTAACGTGCTGAAGCACCAAGTGAATCG  
GTTCGCTACTATCTGTACTGTCTGCGGCTTCGTGCGCTTGTCCTGATTTTTGTAAATCCA  
CTATAAAGACCGTTGGGCATCTGCAGCCGTCATTCCCGCGCAGGCGGGAATCTAGTCTGT  
15 TCGGTTTCAGTTAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 733>:

**gnm\_733**

15 TATGCTTGGGACAATAGCGGAAAAACACCGCCTTGCCTTCGGCAAAACGGGAAAAACCGCA  
AGGCGATGTCCTGATACGGATTTCGGTTTCTGCTCGTGCGGCAAAACGATGTTTCAGCCCCA  
CCGAAACCGACTTCCCTGCAAACGCGCCCTTGTTTGCCGCCTCCATAATCCCCGGCCCCGC  
CGCCCGAAATGACGGCAATGCCCGAATCCGACAGCCGCGCGCCAGACGGCAGGCGGAACG  
CATAATCCGCATGATTCTGCGGCGTGCGCGCGCTGCCGAAGATACTGACTGCCGGAACA  
20 CGCCCGCCAATGCTTCGTCTGCCTGCCTGCCTTCGGCATCATAACGTGCCTGCTCCGGCA  
CACGGTTTGTATTCTCCATTCCTCCGTTCAAAAACAGCGATTGTACACCGTCAAAA  
ACGTATAGTGGATTAAACAAAATCAGGACAAGGCGACGAAGCCGACAGTACAAATAG  
TACGGAACCGATTCACTTGGTGCTTCAGCACCTTAGAGAATCGTTCTCTTTGAGCTAAGG  
CGAGGCAACGCCGTAAGTGGTTTTGTAAATCCACTATCATATAGATTTTTATGCCATTTG  
25 GTCAGAAACAGCGAAGACAGGCAGGGAAACGCCTTCAGTTCCATCGCGTCTTCAAATCA  
TCCCAAACATCGCTCAAATTCTGTTTGGATATGCCGTATTCCTGTCGGGCAACATCACG  
GTCTTTTTGCTTTTGGCGGCTTTTTTGAATGCCTTTCTCTGTTTTTCGGGTATCTGCTGC  
CATCTCAACTGACGGTACACGTGCTAGCCGTGCGCCCCAAAAGAGGCATACCGTTGCGTG  
TCTTCGCGGACACGCGCGCGGTATTCCCAACCCGTACATATCCCGTCGGCACGACGGCA  
30 CTTGCCTTATATATGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 734>:

**GNMLC88TV gnm\_734**

35 AACTACACAACCAGATTTAGCGAAAGGTATAAAAAATGCGGGTCAGAATTTAACATCAA  
TGCAAACGCTTGATGAGCATAATAAACCATTGATGACTGCGCATTTAAAACGAGATACAC  
TTAATGTTACATTATCTCGTCAAACACTAATCAGTATTATTCAGTCTTATGTACAACAAG  
ACAGCATTTATTTAAAACATGGCGTAACATAAATAGATAATAGTAATTCAAAAGTCATTC  
TTCATTTTCATGGAACAAGAAAGTGAAGCCTTTGATTTATGTATTGGTGCAGATGGCATA  
40 ATTCATTTGTTAGAGAAGCTATTGATAGCCAAAGCAAGTTCAATATCAAGGCTATACAT  
GCTTCCGTGGGCTAGTCGATGATATTCATTTAGATGAAACGGATGTAGCTAAAGAATTTT  
GGGGCAACAAGGACGCGTTGGTATTGTGCCATTAATTGATAACCAAGCATATTGGTTTA  
TCATAATCAACGCTAAAGAAAAAGATGTCAAATACCAATCATTGGTAAGCCACATTTAC  
AAGCACGATTTAATCATTATCCCAATATTGTAAGACAAATATTAGATAAACAAGTGAA  
CAGGCATTATATTAAACGATATTTATGATATGAAACCACTAAAATCTTCGTAAAGAGC  
45 GTACTATTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 735>:

**GNMLC88TH gnm\_735**

ATATGAGCGTCGGAGTTATAACGAAAGACATTTATACAAAAGAAGACGAAAAGATCTTAG  
TTAATACAGGTGCTTACCTGAAGATAGAATTATTGGTGTAGAAACAGGTGGTTGCCCTC  
ATACAGCAATTTCGTGAAGATGCTTCTATGAACCTTTGCTGCTATTGATGAGTTATTAGAAC  
5 GTAATGATGATATTGAACCTATCTTTATTGAATCTGGTGGCGACAACCTAGCAGCTACAT  
TCAGTCCTGAACTTGTAGATTTTTCAATCTATATTATCGACGTTGCTCAAGGTGAAAAAA  
TCCCTCGTAAAGGTGGACAAGGTATGATTAAATCAGACTTTTTCATCATCAATAAAACGG  
ATTTAGCACCATGTTGGCGCATCGTTAGAACAATGGCTGAAGATACAAAAGTATTTA  
GAGGCGACAGACCATTCGCGTTTACTAACTTAAAAACAGATGAAGGTCTTGATGAAGTGA  
10 TTAAGTGGATTGAACGAGATACTTTACTTAAAGGATTATCATAATGTCTCAACAAGCTTG  
GACAGGTCAACTTGATTTAACCGTATTTAATAATGGAAGTCGTTCCGTTGCACGTGATAT  
CTTTTTTGGAAAAGCATTAAAGTTAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 736>:

**GNMLC90TH gnm\_736**

AACAATCATTATGAACCCAAACCCCTTCCGTTTCCGCCTGACTGCCCTTGACGAAGTACG  
TATGCCAATCGGCGACGGTCAAATTGTAAGCTTTGACCGGCTGCTGTTTGAAGGTAATGT  
TCTGAACC

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 737>:

**GNMLD05TH gnm\_737**

GTACGGCGTTACCAACCTGCTGCTGCTGGGCAATTTTGCTGCCGCACAAAATAAAATTAT  
CAGGGAAAGATTGTAAGGCAGCTAATTCATAACGGTTAACGCCCCGATTCTGTTTCATATT  
GAAAAACTTTGCGCATATCTCCTGTAATACAAACGGCTGGTTTTGTTGCTGTTGTCACGG  
25 ATGTATTTACGGATATCACCTGTTTTTCGGACGTAATGGTTCATGAATATCGTTACGGTTA  
CCTCCATTTTTTAACAAATGCCATTTTTTCTAACATTTGTGCCGAATGATTCATATCTTCA  
TGATTTGCAACGTGTGGATTGCTTTGCCATCATCCAGTTTTTGAAAATGTCCTATTGCT  
GATCCAACAGTCTGATGGGAAATCTGCAAATGTTACGGAAATGAAATTTTGCCTTTATCC  
CTCCTCCCGATAAATATCACTCGGCTACTTATCTTAGGAACACCGAAATCGGCTGCACTC

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 738>:

**GNMLE03TH gnm\_738**

TCGACATTGCCAACAGCGTCCCGGGTGTTCGGATAATATGACGGACAACGGCAGAACCG  
ATAAAGCCCGCGCCTACTGGCAACAAGTGCCGTCTGAACAGCACGAAGCCTTCCGTTTCC  
35 ACCATATTTCCACCGATGAAGTCTATGGCGATTTAGGCGGCACGGACGAGTTGTTTACCG  
AAACCGCGCCCTACGCGCGTCCAGCCCCCTACTCTGCCTCTAAAGCGTCCAGCGACCACC  
TCGTCCGCGCGTGGTTGCGTACTTACGGCTTGCCGACCATTTGTAACCAACTGCTCCAACA  
ACTACGGTCCTTACCATTTTCCGGAAAACTCATTCTTTTGATGATTCTGAACGCGCTTG  
ACGGCAAACCGCTGCCTGTGTACGGCGACGGTATGCAAATCCGCGACTGGCTGTTGTGCG  
40 AAGACACGCGCGCGCACTGTATCAGTTGTTACCGAAGGTGTTGTCGGCGAAACCTACA  
ATATCGGCGGCCACAATGAAAAAGCCAATATTGAAGTCGTCAAACCATCTGCGCCCTGC  
TGGAAGAACTCGCTCCCGAAAAACCGGCCGGTGTGGCGCGTTATGAAGATTTGATTACTT  
TCGTACAAGACCGCCCCGGCCATGACGTACGCTACGCCGTCGACGCAGCC

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 739>:

**GNMMC45TR gnm\_739**

5 CGCGGGAATGACGAATCCATCCGTACGGTAACCTGCACCACGTCATTCCCACGAACCTGC  
ATCCCGTCATTCCCACGAAAGTGGGAATCTAGCTTTTTGAGTTTCAGTCATTTCCGATAA  
ATTGCCTTAGCATTGCATGTCTAGATTCCCGCCTGCGCGGAATGACGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 740>:

**GNMMC79TR gnm\_740**

10 GCGGCAGACAAGAATGGCTCGAGGCGTTGCGACAGGCCCTGCTTGCATCTAAAATCATTT  
CCTACGCACACGGCTTTATGCTGATCCGCGCAGCGCCGAAAGCTACGGCTGGGATTTGG  
CCTACGGCACCACTGCGCTGCTGTGGCGCAGGGGTGCATCATTCGCAGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 741>:

15 **GNMMD20TF gnm\_741**

ATCCCCGAGGAATCTAGGTCTGTCAGTGCGGAAACTTATCAGGTAAAACGGTTTCTTGAG  
ATTTTGGCTCCTGGATTCCCACTTTCGTGGGAATGACGCGATTAGAGTTTCAAATTTAT  
TCTAAA

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 742>:

**GNMMD36TF gnm\_742**

ATCCCCAAAATTTTTTTGAGTTTCTCAAAGCGATATGATTAGACTGTTGAGAGGTGAAA  
GTAAACAACAGACTTTCAATGGCCGCAATTTGATGAATAGCAGCAAGCTGTAGCCTGCA  
TGAAACCTAAAATCCATGCGTAAGGTGTGTGCTTCAGCACGCACGCGTTCCATGATTTAC  
25 GGCTCAATGCCGTCTGAAAAGCTCACATTTTTTCAGACGGCATTGTATCTAAGCCAGT  
ATTAGCTTCACTATATACCGCCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 743>:

**GNMMG74TF gnm\_743**

30 GCCAACCTTTATCGTAAACATATTCAAAGTATAGTTCCCGAACTCTCGATATCCGAAC  
TAAAAAGAAGAAGAGCAGAGTAAGAGGCAATAGAGGAACAAGTAAGAACAATAAGCA  
AAATTTTCACTTAGTTAACAATAGTTACCTCTCCTTTAAATTCAATCCTGAAAGGTACC  
CCTTACCCGGGGCAACCAATTATAGTTCCCATATTTCAAATATGGTTTAAACATTACTT  
TTTTCCCCCCCCAAGGGAATGCATTTTAAATCAGGCTTTTCAGGTGCAAACCGATACTT  
35 ACCATTACCATCTTTAACCACAGATATATTCCAGGTATAGCCCAACGTGAAAAATCGGA  
GTATTATATACAGTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 744>:

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**GNMMH29TR gnm\_744**

CGTATCGACATTTCCATTAATCTCGGATTTCGCTCGCGGGACAGAGCAGTGACGATGGAGG  
AGCGAGCCAGATGCGCATCGTCGCCAACAGATCTGCAACAACTGCGATCGACCAAACGCG  
ATTTGTCTCCGCCACGTCATACCGGCTGATCCAATTCCGAAGAATACAGAGAGCATCATC  
5 CTCCACCATCCGCACGAGTATAAAGCTTGTGCTAAGGAAGGAACCATTGGGAGGATATGT  
AACTACGGCGCTTAGGAGCCATTGAACCTGACGGTGAATAAATCGAGAGGAAGCTTATTA  
GTGTTTAGAAAGAGATGGTGAGGTCCAATCTAACTCAATTGATGGGTTAATTTGTTGTT  
TCTATTCCGAAGAAA

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 745>:

**GNMMH29TF gnm\_745**

GCGAAAGAACAGAAGTCATTGATGAGAACAGGTTTGTGCGGTGTTAAAATAAACGAATTT  
TATGTAATAAATACTGGTATCTACATAGAGTATTATAAAACATGCGTGTGATTAATCTAC  
GTAGGTAAGCAGCAAATTCAGTCAAAAGAAGAAACATCATCGACCATCTCTAGTGAATTA  
15 CTGAAAACCTGAAGAAATTATCTCATCCCCGAGTCAAAGTGAACCGTGGACTGTACTTGCT  
CATAAGAAGCCTCAGAAGGACTGGAAAGCTTACAACCCAAAGACAATGAGACCTCCCCCT  
CTACCAGAGGGTACCAAATGTGTGAAAGTTATGACTTGGGAATGTTAATGGACTGAGAGGA  
TTGTTGAAGTTTGAGAGCTTCTCTGCTCTGCAGCTTGCCCAAAGAGAAAATTTTGACATC  
TTGTGCTTGCAGGAGACTAAACTCCAGGTCATACTTTAGACCCTTCTTAAGTTGTTTCT  
20 GCTCTATATTTTAAACACAGCCAATCTAGAAATCTCTTGTAATAAGACATACGCAnACT  
TATGACAGGTGAAAGATGTTGAGGAAATTAAGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 746>:

**GNMMH47TFB gnm\_746**

TTGCTGTTCAAGCTGTTTTTCAAGATTCTCGTAATATTCGTACATATAATAAGGGTCTTT  
GTACGGTTTGAATGCGGTCTGTTTCATGAATGGCTTGAGCTTTCAAAAGGCGCAGTCGTA  
CGCTTCGGGAGCCAAAGACTTGGTCAGCTTGTGATGACTCTGCTCAATCAGTTCAAACAG  
TTTGGCTTTGTCCAATTCCGGGAAAAATGAATTCAGACCGTTTGCCGCACGTCCGAACGT  
TTTTTTTACCCATTACAGTATCTGTGCGGTGAAATCGACTTATCTTCCTTA  
30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 747>:

**GNMNA66TR gnm\_747**

GGTAATGATGAATGATAGTTTTTACAAAAGTTTCGGACTACAATTTATACGTTTATAATAA  
TAACAATATCCATCAAAAAAATGTGATTTTTCTTTTTTTAAAAGTTGCATCTTGCCATTC  
35 TTGTAATCACATTCGTAATATTCAGCATTTTTCAAATCTGAATCAATAGATATTGAGGT  
AAAACATTCCTTCCTTATCTAGTTCTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 748>:

**GNMND11TR gnm\_748**

GGCGCGGGACCCATGCTTTGGATGCGGTACAGCCGTCGCGTTATGTTTTGGGGTTCGGAT  
ACGACCAGCCTGAGGGGAAATGGGGCGCAAACATTATGCTGACCTATTCCAAAGGGAAAA  
ACCCTGACGAGCTTGCTTATCTGGCAGGCGATCAAAAACGATATTCGACAAAAGAGCGT  
40

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CGTCTTCTTGGTCGACGGCAGACGTTTCCGCCTATCTGAATCTGAAAAACGGCTGACCT  
 TGAGGGCGGCTATCTACAATATCGGCAACTACCGCTACGTTACTTGGGAATCCTTGCGCC  
 AGACTGCGGAAAGCACGGCAAACCGGCACGGCGGCGACAGCAACTATGGAAGGTATGCCG  
 CACCGGGCAGGAACTTCAGTCTCGCGCTTCGAAACGGGACGTTGTCCGCAGTGGAGCAT  
 5 ATGGACGGCATAATCGTTTAAACGGTTTGGnGAAAGTGTGAAACCAATACGTCGCAAGG  
 TAnCAGCAAGCTGTGCGGTTCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 749>:

**GNMNE46TF gnm\_749**

10 TATCTGAAAGTCCGAGATTCTACATTCGCCGCTTTCGCGGGAATGACGAAAAGTGGTGGGA  
 ATGACGGTTCAGTTGCTACGGTTACTGTCAAGTTTTCGTTATGTTGGAATTTTCAGGAAAC  
 TTATGAATCGTCATTCCCGCGCAGGCGGGAATCTGGTATTTCATGCCTCAAGAATTTAT  
 CGGAACAAACCAAAACCCCTTCGCCGCTCATTCCACGAAAGTGGGAATCTAGAAATGAAA  
 TGCAACATGAATTTATCGGAAATGACCGAAACTGAACGGACTGGATTCCCGCTTTTGCGG  
 15 GAATGACGGGATTTTAGGTTTCTGATTTTGGTTTTCTGTTTTGAGGGAATGACGGGATG  
 TAGGTTTTCTTAAGCCTGCGTCCAGATTCCCGCTTTTCGCGGGAATGACGGGATGTGGGT  
 TCGTGGGAATGACGTTGTGCAAGTTTCCGTGCGGATGGATTTCGTCATTACGCGCACGCG  
 GGAATCCAGACCTTATTGCAACAGCATTATTCAAACATTATCTGA

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 750>:

**GNMNE50TF gnm\_750**

CCCTGCAATAAAAAGATTCCGTTTTTCAAATAATATCGAAACTCTGGCGTTTTTTTCCA  
 CTGTGAAACTCCAATAGACTTTTTGCGGAAGACCGTCCGCATCATAGCCGACCACAAGA  
 CTGTTGCGCTTCATCCCTCGGGGCATCACTTCCCGCATACTCTGATAATCCACAGAATTG  
 25 CCGGAGTCCGACGCAGTTCGGTTGCTCTCTTTGCGGAAGTCGCAACCTTCTGCTCGTCA  
 TTCGCGACATC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 751>:

**GNMNE80TR gnm\_751**

30 CAGGTCAAAAACCTTATTGCGTCTGGCTTTCGAAATCATGCTCCAGCAAACGCAAGTCG  
 CCACCGTGTGGACTACTATCCGCGCTTCTTAGAAAAATTCGCGACCGTTCAGACGCTTG  
 CCGCCGCGCCGCAAGACGAAGTGTGTCGTTGTGGGCGGGCTTGGGCTATTACAGCCGCG  
 CGCGCAACCTGCACAAAGCCGCGCAACAAGTCGTCAGGCAATTCGGCGGCACGTTCCGT  
 CGGACGCGCAAAGACTTGAAACCCCTCTGCGGCGTAGGCAGAAGCACCGCCGCCCATTT  
 35 GCGCCTTCTCCTTCAACCGCCGCAACCATTTTGACGGCAACGTCAAACGCCGGTAGC  
 GTCCAAGGCGTAGTCGTCAAATGACGGCAACGCTTTGCCTTCGAAACCAGCCAAACCG  
 AATGCGGCGGCAAGCGCGGCAGTGTCTTTAAACAGATAGGCAACGTCAATCGCGGGCGAG  
 ATTTTGTCTTTGTATTCCACTTCCGCTTCGGCCAGCGAAGAACCGCAGTCCAAGCAGAAT  
 TGAACCGGTTTCGCACCCCGGTAGAGATAGCCGATTGTAGATTTCGCGGAGCATACGC  
 40 ACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 752>:

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**GNMNK53TFC gnm\_752**

5 GTCGACTCATAGAGGATCCACGAATCTAGACCTTAGAACAAACAGCAATATTCAAAGATTG  
GCGGATTCGCATTTGAAGTGCAACTTTCCTAACAGAAAAAGGCCAGTATGCGGTAGCAT  
ACGGCCTTTCTTGCAAGAAAGATTGCCATGAGCTACACGCAACTGACCCAAGGCGAACGA  
10 TACCACATCCAATACCTGTCCCGCCACTGCACCGTCACCGAAATCGCCAAACAGCTGAAC  
CGCCACAAAAGCACCATCAGCCGCGAAATCAGACGGCACCGCACCCAAGGGCAGCAATAC  
AGCGCCGAAAAAGCCCAGCGGCAAAGCCAGACTATCAAACAGCGTAAGCGACAACCCATAT  
AAGCTCGATTTCGAGCTGATTACGACATCGACCCCTTATCCGCGCAAACCTCAGTCCC  
15 GAACAAGTATGCGCCTACCTGCGCAAACACCACCAGATCACGCTCCACCACAGCACCATT  
TACCGCTACCTTCGCCAAGACAAAAGCAACGGCAGCACGTTGTGGCAACATCTCAGAATA  
TGCAGCAAACCCCTACCGCAAACGCTACGGCAGCACATGGACCAGAGGCAAAGTACCCAAC  
CGTGTGGCGATAGAAAACCGACCCGCTATCGTCGACCAGAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 753>:

**GNMNL81TF gnm\_753**

15 GCGGGAATGACGGCAAAGTGCGGGAATGACAGATCGGGCATTTCCTTAAATTACCCGTGT  
ATCGCTGTAAATCTTACAGATGGCGGCATATAGTGGATATCCGCAAATCGGCGCGGAAA  
CAGGGGTAACCAAATCCACCTCAACGTCCACGTCAACCACGACCGTGCCGACGCGCACC  
20 GCCTGTATTTCAAAAACGGTTTTTGAAATCTGCGCATACCACTTCCGTTGCGACCCCAAAT  
GAAAACCCCCCTCCCCATCTGCACCCTGTGCGCACTCGCCGCTGCACCCTTTCGGGACA  
AGGCGGCAGCAGGGTTTACGGCGAAATCAAAGCCCGAGACCTTTGCGTTACCGCTCCTAT  
CCTGCTTTCTGCTTTCTGTCTTGCTGCTCTCGTTGAGCCAAGCGTTCTTGCAAGCTCGC  
25 TTGCACGTTGGCAAGCATTGCACTCTATCCGCTTTCTTTTCTGTTGCGGCTGGTGGTTC  
AGGCTCGCGTTGTACGCTTTGCACTAAAGCGCACCGTGAATCGATGCTCGCTATTTATTC  
TATCAATATTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 754>:

**GNMNN48TR gnm\_754**

30 TTGGGAAGTTGTCCGTGTGCGACACGTTTTTGTGTCTGACCGTTATGTAGAAGGGCAAAAA  
TGATAATGACCGCCCGTTGCGTTTTTGAGAAGAGGGTAAGGCAGAAAGCATATGCCGT  
CTGAATGATATTTACAGCGGCATTTTATATTGCGGCGCACTCAGTCCGTGTCGCTTTCA  
GGCAACTCTGCCGAACCCATGCGTTTGAGCACGATATTGGTTTTGTGCGGAGCCGTTTG  
CTTTTCGGATGGTTCGGCGTAGTAGAGCGGGGCGGGGACGCGCGCCGTCAGTTTTGCCGCC  
35 GTTCAAAAAGCCAATTCCGGCCACCCCGCGCGCCTATGGGTATGGCGGAAATGGCGGAA  
ACATTGTGGACGAAATTCCTCAATCACAAACCCCGCCAACCCCAAATCTACAACCGCGAC  
CGCTTCGTCCTCTCCAACGGCCACGCGTCTATGCTGTTGTACAGCCTGCTGCACCTGACC  
GGCTACAACCTAAGCATTGAAGACTTGAAAACTTCCGCCAACTGCACAGCAAAACCCCC  
GGCCATCCCGAATACGGCTACACCGACGGCGTGGAACCACGACCGGCCCGTTGGGGCAA  
40 GGGATTGCCAACGCGGTGGGTATGGCATTGGCAGAAAAATCCTTGCCGCCGAATTTAAT  
AAAGACGGTTTGAACATCGTCGATCATTACACCTACGTCTTTATGGGCGACGGCTGTCTG  
ATGGAAGGCGTATCGCACGAAGCCTGTTTCGCTCGCCGGCAACTTGGGCTTGGGCAACTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 755>:

**GNMNQ41TR gnm\_755**

45 AAAAGCGGGAGCTCCACCGCGGTGGCGGCCGCTCTAGAACTAGTGGATCCCCCGGGCTGC

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AGGAATTCGGCAGGAGAAAGGGACTTATTACATTGGTACAGACATATTTATGCTTTCTTCC  
 ATCACCAACCACTAAACCCCTTTGGAGGAATGAAATAACTGCATAAACTAGTCAACTGAA  
 CACTGGGCCACTTACCTCAATGTTATACAAAGTCCTGGATGATTTGATTCTGAACCACAG  
 CCTTTGCAGGAGTTGGGGGAATCAGATTTGCTCATGAAGACATCCCTTTCCACTTTTGTC  
 5 ATGGGCAGTAAATACTATAGTTTACAATGCCTACCAATTAGCAAAGGATCATTTCATTGAG  
 CTACTCAGTTCCTCTGTAAAACAGGTCTATGTATGTGCAATTCAGCTAAGATC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 756>:

**GNMNQ41TF gnm\_756**

10 TACGACTCACTATAGGGCGAATTGGGTACCGGGCCCCCCTCGAGTTTTTTTTTTTTTTTT  
 TTTTTTCTGTATTGAACTTTATTACAAAATTATAAAGCAGAGCTCTGTAACAAAATAAT  
 ACACATTTGGGTTTGCTTTAACCTCCAAGTAAGTCTGAGAAAATCTTAATAAAAGCCACT  
 TGAAGTAACAATTCACATCCAAGAGATTTCCACAAATTTATACAATGTATATTGAGCACT  
 AGTTCCTGTACAGCTTATTCTTATTAGTTTGGATCCAACCTATTCCAATGTATTATGAACC  
 15 AGTCAGCTATCTGTCTTTTGAACAAGTCTTAACTGAAATCTCAGAGTAATCAGCAAAAAG  
 CTACGGAATAATTCTAAGAATTAGATGTTTCCATATCATTAACCAAGGATCCATGAGG  
 GGCAGAAGGGAGGATTCAAAGATTTAAAAAAATCAAATTTTAGACCTTGGTTAAATATT  
 AACTGGAATGGGATCTTGGAACCTCCAACCTTTAATTTGGTGTAATAAAAATG

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 757>:

**gnm\_757**

TGTTTCCCTCTTGACAACGGACGTTAGCACCCGCTGTCTGTCTCCCGAGGAACCACTTGA  
 TGGTATTCTTAGTTTGCCATGGGTTGGTAAGTTGCAATAACCCCTAGCCATAACAGTGC  
 TTTACCCCATCAGTGTCTTGCTCGAGGCACTACCTAAATAGTTTTGGGGAGAACCAGCT  
 25 ATCTCCGAGTTTGTGTTAGCCTTTCACCCCTATCCACAGCTCATCCCGCATTTTGCAACA  
 TCGTGGGTTTCGGTCTCCAGTACCTGTTACGGCACCTTCAACCTGGCCATGGATAGATC  
 ACTCGGTTTCGGGTCTACCCAGCAACTCATCGCCCTATTAAGACTCGGTTCCCTACG  
 CCTCCCTATTTCGGTTAAGCTCGCT

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 758>:

**GNMNR06TF gnm\_758**

GCTCGGCTCATGGAAACGAAATACATCGTATCTGCACTCAAATATCGCCCCGATTCTTTT  
 GCCTCGATGGTCGGTCAGGAGGCATTGTCCGCTACACTCAAAGCTCCATCGTACAGCAA  
 AAGACAGCTCACGCCTATCTCTTTTGTGGCCCGCGTGGGGTGGGAAAGACCTCTGTGCA  
 35 CGCATCTTCGCCCCGTGCCATCAACTGTCTGGAGCGGTTGCCGGATGGAGAAGCTTGTGGG  
 CGATGCGAGTCGTGCAAGGCTTTCGATGAGCAGCGATCCATGAATATATATGAACTGGAT  
 GCCGCTTCGAACAATTCGGTAGATGATATTCGTCTCTTGATAGAGCAGGCCAATGTGCCG  
 CCACAGATCGGGAAATACAAGGTCTACATCATCTACAAGGTACAAATGCTC

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 759>:

**GNMNR07TF gnm\_759**

GAATCAATGGAGAAAGTTTGATCCGATGAGATAACGGTCGTCCAATCGAAAAGTCTGAGC  
 CTTTCATAAATTTTCATCTGTCTTCGCATGGAAAGTTATTACAGGTTTCAATATGCGC



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AGTGCTGTACGCAACCGGAGATTAGCAAGATAGAGCATCCTCTTATCTCCTCGAAAACCTG  
ACCATACGCCGGCCGACGGTTACCTCCTCAGCACCCAAGGCTGTTAGTTCGGCAGCCAAG  
ACATCCTCCAACCCATAAAGGGTCTTAGCTACCATAGTAAATTGGAGATCGTTATTCATA  
ATAGTCCATGATTATGGAACAAAGATAATGAAATACGGCCGCAGTTTATGGCTTTTTGAG  
5 ACCTGTACGGAAGTGTGTAGATTCCAGCTATCAAGGCTCGCATTTCAGCCACTAACGTAC  
ATCTAAAGCTCATGATGCTACGCTCGGTTATCAAACAAGTACGAATCCATATATCAGAGA  
TTCAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 760>:

10 **GNMNR12TF gnm\_760**

GTACTGCTTATAGAGATGGCTTCCTGTTTTCTGATAGCCCCCTTGGATGGCAACGATACGG  
TCTTTAATGCTTCTCTGCTTGGAGCGCTCTCTTGAGCTATTGCTACCATTATAACCAAG  
ACGAAGCGTATCGCACGCTTGC GCGCCAAACGATCTCAGCTTGCTGTGCTGCACAAGCCG  
AAGATGGTTCGTGGGTCTATGGGATGCTACCCGTGCAGTCATGGATTGATAGCTTCCATA  
15 CCGGCTACAATTTGGATGCACTGATTGCCTATCAAGAGCTAACGGnGGACATTTCTTTG  
CCGAGAATATAGAGCGTGGGTTGTCGTATTACTTAGAGCATTCTTCGAGGCAGATGGTA  
TGCCCAAGTATTATCAGGATCGTACTTATCCAATCGACATTCATTGTCTGGTCAGCTCT  
TCGTGTCGCTAGCTAGACTTCATCG

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 761>:

**GNMNR14TF gnm\_761**

GGAGCGGGCGCAGTTCCTCCCTGCGCTGGACGAAAATAGCATGAACAACCTCTCGGAAAA  
CAGCCTGAACGAAGAGAGTCGATTGCTTTGGGACGGCTCTTCGGATTGGGCAGAGGCACT  
GACCAAGAGGATCCGCCATCAGGATCGCTTCCCCTATCTGATGCTTCGTTTTATCGAGGA  
25 GATGGATCTGCTCAAGGGTATACGCTTTCGTGTCGATTGGGTGAAATCGAGCTGGATTCT  
TTACTCCAAAAAGGTAGGCCGGAATGGTGAGTACGATCGCACGATAACGGATCATGCCTT  
GGCATTTCGGCAAGCTGTCTAGACTTCCAGAATGAAGAAGAGGTAAGTAAGATGATCAGTGG  
AGAAGCGTCTTATCCCGTACGCTTCTCTCTCTTTGCTCCCCGCTATGCCATATACGACAA  
TAAGATAGG

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 762>:

**GNMNR20TF gnm\_762**

GAAAATACAGCCTTTTTCGTTTTTACCGGTCAAAATAAAATCTTCTGAATACTGTCCCATA  
ATCATATTTGTTAATGGTCAAATATAATGAAAGAATGTTTTGAAAACCAATATGAACTGT  
35 TGCATGGGAGTTTCATTGAGCTCTTTTGCTGCAGAGCAGATTCTTAGTGTCTTCGGGAAA  
GGTCAAACCTCCGGTATATGGGCACACCAAGCAAACAGAAATTTTCCCAAGTTTCCATTA  
GAGAAGTACTCCTTTCTCGTCAAATAGGCGAGAAATAAGAAACGATTGTCAGCTGATTCT  
TTGCTTCCTGCATGATGCAGGACGCGATTGTCAGCTGATTCTTGCTTCCTGCACGATGCA  
AGACGCGATTGTCAGTTGATTCTTGCTTCCTGCACGATGCAAGACGCGATTGTCAGCTGA  
40 TTCTTGCTTCCTGCACGATGCAAGACGCGATTGTCAGCTGATTCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 763>:

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**gnm\_763**

ATTCCAGAGTACTTAACTACGGTTTTAAATGTACCTTTTTATTTGGGTGGCACGTCTTTG  
TTGATTCTAGTTGTTGTAAACGATGGATTTTAGTACACAAATAAATTCGTATAGGCTTACT  
CAACAGTATGATAAGTTAATGACTCGTTCAGAAATGAAATCATTCTCGGAAATAGAAT  
5 TATGGCGAAAGAAGATACTATCCAAATGCAAGGTGAAATCTTGAACTTTACCTAATGC  
AACATTAAAGTAAACTTGAGAATGACCATATTGTATTGGGTGCATATTTCTGGGAAGAT  
GCGGATGCATTACATTCTGATTTCTCCGGGAGATAAGGTCACAGTAGAGCTGACACCTTA  
TGATCTAACTAGGGCTCGAATCGTTTTAGAGCAAGATAAACCAATAAAAGGAAAAATAAA  
ATGCGTGTACAACCATCTGTTAAGAAAATTTGCCGAAATTGCAAGATTATTCGTCGAAAT  
10 CGTGTAGTTCGTGTAATTTGTACTGATCTCGGTACAAACAGCGTCAAGGTTAATGGAAT  
ATTTCTTGTAATGTGATTCTGTGATATAGTGACACACTTTGCCCTAAAAAGGAAAAATA  
TGGCTCGTATTGCAGGGGTAAATATCCCTAATAACGCACACATCGTAATTGGTCTTCAGG  
CTATTTACGGTATTGGTGCTACTCGTGCTAAATTGATTGTGAGGCTGCAATATTGCGC  
CTGATACTAAAGCCCAACATCTTTGAGCAACAGAGCCCGTTGATAGCCACAGCTGTGTA  
15 TGGTAAAATTCTGCCCAGAAATCAGAAAGAAGAGCGTACATTTTGGAGAGCAGTCGACCT  
CTAAGATTTTCAGGAAGACGTTTTGTTATTTGTTTCGCAAAACTTCTAACAAATGGACAC  
TCCCACATAATATGTCAACGTGTTCCCATTTGATTCAAATTAAATAGGGTACAGTTTGA  
GAATAGGCCTATTTGAATAAAAAGTATGCTCCTTAGATTGGGATTGTGTGTCCTCCGG

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 764>:

**GNMNS04TF gnm\_764**

ACACTGATGTTACCGGGCATCTTGCTCCAGTTATAGGTCTCACCGAATGTGCCTGAATAG  
TGGGTATGCGTCCCCGTCATATCATCGTAGTCATATTCGCCGGAAGCCTTCTCCGGC  
CACTTGTAGTGACGCATGATTTGTCCCATGGCAGTGGAACACAACCGGTATAAGCCTGC  
25 TGCCCGGAAGGAAGCAGGGGATGCAAGGTGTTAAATGGATAGCCCTGATCCCAAGATC  
GGATCCGATGCATGTTCCGCCGTTTCCAAAATAGGGGCAATGGATGATGGCAGGTCCCGT  
GTAGGCTTGGCTTCACGGATAGGATCTATCGGCTCTGCCTTGCCGTCCATTACAGCAGGC  
ATTTACGTTTCATAACCTTTGTGCCACCCTCTGATATTGTCCGGTATACGGGCCG

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 765>:

**GNMNS06TF gnm\_765**

GAAAAGAGAGCTTCATGCGATCTCTCTGCAAACCTCAAGTAATCTGAAAAACACTTAAGA  
ATCAGCTCTGCGGCAAAAGACTTCAATGAAAGTCCTATAAAATAGTTGCAAATAGCTGAT  
AGTTAGCGCATTTGATGGGAGCAGAATCAGCTGACAATCGCGTCCTGCATCGTGCAGGGAG  
35 CAAGAATCAGCTGACAATCGCGTCCTGCATCGTGCAGGGAGCAAGAATCAGCCGACAATC  
GCGTCCTGCATCGTGCAGGGAGCAAGAATCAGCTGACAATCGCGTCCTGCATCGTGCAGG  
GAGCAAGAATCAGCTGACAATCGCGTCCTGCATCGTGCAGGGAGCAAGAATCAGCTGACA  
ATCGCGTCCTGCATCGTGCAGGAAGCAAGAATCAGCTGACAATCGCGTCCTGTATCGTGC  
AGGAAGCAAGAATCAGTTGACAATCGCGTCC

40

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 766>:

**GNMNS08TF gnm\_766**

CACTTTCACTTATACATACCCCGTTAAATAAGTTAAGAGGGAAATATGAAAAGTGTAGTA  
ACAAAGCAGGCCCTCATCGGCCTGCTTTCTTTAGTATAAGTATATACTCCCATGCGGCC  
45 AACCTCCGGCCCCAACCTACCGACACCATCGTATCCGGCAATATCGCACTTGAGGATATA

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GTGGTGACCGGTAGCCGTACAGCCCGTCTGCTTAAAGATGTACCTGTCCCCACAAAGGTG  
 TTCAAGGCCAAAGATATCAAAGCTATAGCCCCATCTTCTTTTCATTGACGTACTGCAGTAT  
 ATTCTTCCCGGGATCGAGTTTACCAAGCATGGTTCCAGAGATCAGCTCAATGCTCAGGGA  
 TTTGACGAAAGTTCTATTCTCTTCTCGTCGATGGCGAATTGATTTCAACGGGATCTACC  
 5 AGTGGAATAGACTTCGAACGAATCAATCCGGATGACATCGAGCGAATCGAAGTGCTTCGT  
 GGAGCTTCTCTGCTTTGTACGGATCTAATGCCATCGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 767>:

**GNMNS13TF gnm\_767**

10 GAATGGAGCAAATGAAAAAGCGATTCTCTGGCAATGTCCAAATGCATCTCAATTTGGACG  
 AATGCAGGAATGAGTTACTTGTACCTGTTTAAAGTGCTGAGATACAAATGCAGGTTAAAG  
 AGCTGTTTGAATTATCCATGCAAAAGTCGACAGAGGGAATATCCCTCTACTCCTCTGCTG  
 AGAGCTATCTATTGGCGTGCTTAGGGATGCAAGACTTTGTAGCCAATATAGATGCTTACA  
 ACGTAAAGACACTCAAAGAGAGCTTCCCTTGAAGTGAGCGCATTGATGCAGAGTATTATT  
 15 TGCCTAAGTATGAGGATTACATCAATGCAGTATCGGCATACACTGGCGGTGTCGCTCCTC  
 TTGGTGAGGTCTGCACCATTAAGACAGCAACTATACGCCAGAATGTGATATGAAGTATC  
 GCTACATTGAGTTGGCTAATATTGGCAAGTCGGGCGACATTACAGGCTGTTTGTACGAAA  
 ATGGTGAAGACCTGCCCACACGTGCAAGGCGTATCGTAACCCAAGGCGATGTTATTGTTT  
 CATCTATAGAGGGGTCTTTGA

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 768>:

**GNMNS15TF gnm\_768**

ATCGAGTGGTTGCAGGTGGAATACACGTTTCGCCTCTGTTCCGAATGGATTGCAGGTTG  
 TCCCTGATGGTGTTTTGGTTGCTGTTTCATGACGGGGTACGTCCTTTGGTCAGTGCTGAAA  
 25 CTATCGATGCCTGTTTCGATCTTGACAGAGTTGAAGGGGGCTGTCGCTCCTTGTCGCCCTA  
 TGACCGAATCGCTTCGCTATTATGCCACTGATGGCAATTATGCAGTGGACAGGAGTCGGT  
 ACGTCACGGTACAACTCCACAGACCTTTCGGAGCGAATGGCTTCGAGAGGCCTATCGGC  
 AACCCTATGAAGAGTATTTTACCGATGATTGTTCCGGTATATGAACACCATTTTGGCCGAC  
 CGGTGGCATTGATTGTCGGTAATATCGAAAATATCAAATTGACTACTCCTCTCGATCTAT  
 30 CCCTTGCCAAACTGTTATTGACATCCTAATACCTAAAAACATAAGTTACATCTCCACAT  
 TGTGGAAGAATACAAGACAACTTAATCGAAGACCTCGAAAAGGGCTAGGGCAACTAACC  
 CCATGCCAAGTTTTAGAACTAAGTACTAGCTACTCAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 769>:

**GNMNS17TF gnm\_769**

GGCGTTTCATCATCTCATGTGCCCTCGATGTAAGCACAGTGTATATACCACCCTGCTTAT  
 TGCAAACCTCCCAGCTCGTCTCCAGCAAGAGGGAAGGGTTGGGGCGAAAATCATTCATTC  
 GATCGCAATTCGTTTGGGAAAGTTTTTCCGGTCTTATCCTCCGACCAACCGCCATACAA  
 AGGCCACGGCTACGGTCACAACGAAACCTGTGGCAAGCGGAATCAAGGCTGCCAGCAGCG  
 40 TCCATTTCCGGCTCCCCGTCTCTTTATATATGTTAAACAGGGTGGTGCTGCAAGGATTGT  
 GGAGTAGGCAGAACAGCATGAGATTGATACCTGTCAGCATAGTCCAACCGCCGGCTTCGA  
 ACAGTCGTGCCGTTTCCGGCTGTGCCATCGGCTTCGAACATGACGCCGGCACCAGGTTCCCTC  
 CATCTATTCCCGTAGTCAGGACAGTCAGCATCAGTATCGTCGGTATCACTATTTTCATTGG  
 CCGGAATGGCCAATACATAGGCCAGCAGAATGACACCGTTGAGTCCCATCAGCCAACCGG  
 45 GTCCGTCCAGCAGGTGATCAGATATTCGGCTATCCCGACTCCACCGATTGGATGTTGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 770>:

**GNMNS19TF gnm\_770**

5 GACGGACGTATCATTTTTTCATAGCCCCCTGCTAACGGAGCAGGAAGACTTACCCACCGAT  
TTTGAGAATACAGTCCCTGCCATCTTGGAGGACTGGCATCGTGATGCAGCACCCCTCGCTG  
GACTTGCATATGTGTGCGGCAGCTGGCGAACTCCCGGTTCTCCCCCTGTAGTACTGGTG  
GACTTCGAACCCCTCCATGCACAGAAAGCAACGCTCTACTATGAGATGTGGGAGCACTTC  
GGCATCCAAAGCGACAAGGGGTACGGCGACTATGACGAGGCCTCGCTCTTCGGCATTGCC  
10 GCAGCCCAAACGATGCATAGCCTGTGTGAATACCTCTGCCCCGAAGACCAACCGGCCATA  
GGTATATTCAACGAATGGATGCTCGGCATGGGACTCCTCTACAGCAAGCGGAAAAACCTT  
CGTCTGAAAACCCCTTTTCTCACACATGCCACCACACAGGGCGGTCTATCGCCGGCAAT  
AACAAAGCTCTGTATGCCTACATGCCGGGCTACAACGGCGATCAAATGGCTGCCGAACTC  
GGTGTAGAAGCCAAACACGGGATAGAAAAAGCGCGGCTCACCAATCGGACACC

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 771>:

**GNMNS23TF gnm\_771**

GACTTCACGGTTGTTTTCGAAGAAACGCCTAACGGAATAAATAAGGGCGGAGCAAGATTTC  
GGTCTTTCCACGGAAGCCAATGGCGCCAAACCTCAAAGTGTATGGATCGAGCGTACGGTA  
GATTTGCCTGCAGGCACGAAGTATGTTGCTTTCCGTCACTACAATTGCTCGGATTTGAAC  
20 TACATTCTTTTGGATGATATTCAGTTCACCATGGGTGGCAGCCCCACCCCGACCGATTAT  
ACCTACACGGTGTATCGTGATGGIACGAAGATCAAGGAAGGTTTGACCGAAACGACCTTC  
GAAGAAGACGGCGTAGCTACGGGCAATCATGAGTATTGCGTGGAAGTGAAGTACACAGCC  
GGCGTATCTCCGAAGAAATGTGTAAACGTAACTGTTAATTCGACACAGTTCAATCCTGTA  
CAGAACCTGACGGCAGAACAAGCTCCTAACAGCATGGATGCAATCCTTAAATGGAATGCA  
25 CCGGCATCTAAACGTGCGGAAGTTCTGAACGAAGACTTCGAAAATGGTATTCTCTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 772>:

**GNMNS25TF gnm\_772**

30 GGCCGATAGATTTCTGCGGATGAATAAGACCGAGTGCCTTTTCGCGAATTTGCGGTAATGC  
CCATTCCCAGATTTTACCGGCACCATTTTCGGCCATGTCACAGCGGCATCCATCGATTCC  
TTTGCTTGCCCAAAAGAGCAGAATATCTCGCATCCGAATCCACGTGTCCGGTAGAGGATC  
GAAGTGTGTTGCTTCTCTCCATTACAGGTACACGATGCCGTACTTCAATTTACCGTTTCGTA  
CCAATCTCCTTATCGAT

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 773>:

**GNMNS28TF gnm\_773**

40 GAGTAAGAACAACCGGTCGAGTAGCTGCTGCCCACTATCCGGGCGGCTAAAAAGCAGATC  
GGTCAGTTCATCGCCCCAAAGTCTTCTCCGGTACGTAGTACTGCTTGGGTACCTCCCT  
ATTCCAGAGGAGATCACGCGAATGATCTGTCAATAAGGGAGTGAGAAGAACACTATTGAG  
CAAGTCAAGAACAGCATCTGTCCGAAAATGAGGAACCTTTTGAATAAGACGGATTTCTGC  
CTGTACCCTGATCCACTTCTCGACAAAAATGGAATGGCACTTTGAGAGAGAGGGATAGC  
CCATAGTCACATTGATACGTCTACAGTCTCGGCCAGACTGTTCAATACGGGCATCAACA  
TTCTGTATCGGGAAGAATGATAGCTGTTTCTATTCTTCTTTGGTCAGAATAGCCTTCA

GGGTATAACTCCTCGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 774>:

**GNMNS30TF gnm\_774**

5 CACTTTC AATACTCAATTCATTCTGGCCTGGCTGTTGATCTTTTGGGTATTGTCCTGTT  
TGGACGGTTGGGGCTGCTGCTGTCCGCCCTGGTTATTGTTATTCCGATTGTTTTGCCGTT  
GTTTTTGTGCTGATTACTCTCCTTATTCTGATCCTGATTGTCTCCTCCTCCTTGCTGTT  
GCTGTTTCTGAAGCAACTTCATGGTCAAAGCCAGATTGTAACGAGTCTCTTCATCGGTG  
GGTTGATTCCGAGCGAATGCTTATAGGCCTCCACACTCTGCCGATAGTCTTTCTTTTCA  
10 TAAAGGAGTTGCCGAGATTGTGCATCAGTTCGGCTCTACGCTTAGGTGTCAATGTCGGGT  
CTTGTAACAAGAGCAGCATAGTTTGGAGAGCTTCATCGGTGCGGCCTTGTGCATACTGTG  
TACCGGCCAAACCGAATCGTGCCTCGGTGAAAGTACTGTCCTTGGAGAGAGCTTTGCGAT  
ATGCGACCTCGGCATTGGCATATTGATGGCGTCGATATACT

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 775>:

**GNMNS34TF gnm\_775**

GGGACTGCTTTCCGACTTGAAAAAGAAAGCAAAGAGGATGGCGATGACCAATGCATAAGC  
TGCGAAAATATACCATACCGTGCTCCAAGCCGTATGACCGGCATCCGTAAAGCGATCTAC  
CACCCAACCGCTGGCAAATCCGCCGATGATAGCTCCGATACCATTGGTCATTATCATAAA  
20 AAGGCCTTGAGCAGCTGCCGAATCGATGGTGTAGTCTCTCGATCGACAAACATGGAACC  
GCTGATATTGAAGAAATCGAAGGCCATACCATATACGATCATCGACAGAACGAGGAAAT  
GAAGCCGCTACCCGGATTGCCGAGACCAAAGAAAGCGAAACGCAACACCCAAGCCAACAT  
ACTCATAAGCATCACCCGTTTGATCCCAGCGCCCCATGAAAAACGGAATGGTCAAAAT  
GAAAAGAGTCTCGGAAATCTGCGACAAAGAAAGCAACACATTGGGGTGCTGAACGGCAAA  
25 GCTCTCGCTATAAGCATCCGCAAAATGAGACAAAACGGATTGCCGAATGTATTGGTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 776>:

**GNMNS37TF gnm\_776**

GTCTGCGGCAGGTATGCCAACAGGATTGCCCGCGGTTCTTTCTCCATAGACGGCAGATGC  
30 TACAGCCTGCCGATCAACAATGGGCCGAACCTCTGTCATGGCGGCATCAGCGGATTTAAT  
ACGAAGGTCTGGGAGGTGAAATCCGCCGGCCCTCTTCGCTTGTGCTGGAATACGTGTG  
GCAGATGGAGAGGAGGGGTATCCGGGCGAGCTGGTCTGTCGGATCATTTACAGCGTCACG  
GATGAGGGCGCATTGCACATAGACTATCGTGCTACTGCGGATGCTCCTACGGTTCTGAAT  
CTGACCAATCACTCCTATTTCAATCTCTCGGGTGAGGCGATCCCTCCGTGCATGATCAT  
35 ACCCTCATGATACAAGCCCGGCATTATCTCCCCACAGACGATACGGCCATCCCTTACGGC  
GAGCCTGCCGAGGTGAGGGGACGCCGTTTCGATTTCTCCTCACGCCCTCACGGCATAGGGGAT  
CGGATCGACACTGCGATGGATCAGCTCATTGGGCAAAGGGATA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 777>:

**GNMNS39TF gnm\_777**

CTCTCCTATCGTCAGTCCATGAAGAATAGGCAGCGGATCCACTCCGACAAACGAACGGCA  
ATCATCTTGTAAGATGGGACCATCCACGTAGTCGTTCCGGTTCGGCCGATCAGTAACGAT  
CAGCTTTTCTGCTCCTCGGCACAAGCCTCCATCACATAGTGCAGCGTACTGATATAAGT

AAAGAAGCGAGTCCCGACATCCTGCATATCGAATAGCAGCACATCGACGTCGGCCAACAT  
TCGAGGAGTAGGTTTCTTGTTTTGCCGTAGAGCGAAACGATAGGGATTCCCGTCCTGAC  
ATCCCGTTCATCCTTGACCGTTGCCCGGCATCGGCATCTCCACGGCAGACGTGTTTCAGG  
ACCTAGGATCTTGCAGACATTGCATCACTGCCGAGGCA

5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 778>:

**gnm\_778**

CCCCCGCTTTCTCTACATAAAATTACATTTTGCCGATATTTGCCGAATTGTCTGAAAAT  
ATGTGTAATAAGGGGCGTATAATCAAACATTTGCCCGGATTGCCATGCCTTATTTTCGC  
10 CCTGTTTGACGATGCCGTAAGCGGCCGCGCAAAACGCTATCAAATCATGTGGAAAGCCG  
TTTTTCCGTCCCGAAGAACTCGATGCTTTGGACGGCGCGCTGCAATCGGGCTGGCAAAA  
AGGGCTGCATTCCGTGTGTTTGCAGACTACGGATTTCGGTTTGCCGCTGACGGGGGTGA  
GTCCGAACGCGGCGGCAATCTTGCCCTGCACTGGTTTGCCAACTGCGCCGACATCGATGC  
CGAAAGCyGGCTTGCCGACACTCAGATAGCCTCATGCGTGGGCCATCGACATGCATGAG  
15 TTAAGCGTATCGCTAGCGTTCATCCTGAGCCAGGATCAAACCTCTCCACTGTCATATTTGT  
GTTTGTTTGCTTCTGTTTTCTCGCTCAGACGCCGATTATTACCCTTTGGATAATTCGAT  
TTATCAGGTAGTACACCTCGGTTTCTTTTTCTCTCTCGGTCTTTTCGTTTTTCCTCTTG  
ACAAAG

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 779>:

**GNMNS42TF gnm\_779**

GCTGGTTCAGGCTCTCGCCATTGACCAATATTCCTCACTGCTGCCTCCCGTAGGAGTCT  
GGTCCGTGTCTCAGTACCAGTGTGGGGGATAAACCTCTCAGTTCCTTACCCATCGTCGC  
25 CTTGGTGAGCCGTACCTCACCAACAAGCTAATGGGACGCATGCCTATCTTACAGCTATA  
AATATTTCTTGTAAATATCATGCAATAATATAAGTGTATGCGGTTTTAGTCCGTCTTTCA  
GCCGGTTATCCCCCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 780>:

**GNMNS49TF gnm\_780**

GCCGACTGCCACGGTGCCGGCTGTCCGGTGACGATCGGCCGGGCCGAAGTCGGGATGCCA  
GTCGGCTTCGTGTATCTTCTCTGCCATGCCTTCGAACTCGCCTTTGCGGATCTTGCCAG  
GTTTTACGGTGGGGAGCGGTAGCCGATTTCTCATAGAGGAATACGGGCACGCCGTACTT  
CTCGCCTATCGTGCGGCCTACCTCCTTGCGGAGGGTGTGCGCGTCTTCGGCAGTCACATT  
35 CTTGATGGGGATAAAGGGGATCACGTCCACTGCGCCATACGGnGGTGCTGACCCGTGTG  
TTTGGTCAGGTCGATCAGCTCTACGGCTATGCCAACGGCTTCGAGCACTGCCTCCCGAAG  
GGGCTCGGTTTCGCCACTACGGTCACGACGAGACGGTTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 781>:

**GNMNS51TF gnm\_781**

CCCTTCGTGAGGAAAAGACCGGTGGATTCCACTACGTATTCCTACTCCGACTTGATCCCAT  
TTCAGATCGGCAGGGTTCTTCTCAGCTGTAACCTCGAATGGCTTTCCCGTTTACTATCAGC  
TGACCATCTTTGACTTCGACTGTCCCATTGAAACGACCGGTGACACTGTCGTACTTGAGC  
40 ATGTACGCCATATATTCACATCGATCAGGTCGTTGATGGCTACAATTTCAATGTCGCTT

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CTGTTTTGTGTTGTGCTGCGCGGAATACCAAGCGGCCGATACGGCCAAAGCCGTTAATA  
CCTACTTTTCGTATAACTAAGTGCTTATATTTTAATGTTAACCATTATTGTTTTGTCCGG  
AATACTTTGCTTTTCCCCCGAAAAGGATCCGCAGAGATTCTTCCCGATAGACAGCGTTC  
CAATGACCTTGCT

5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 782>:

**GNMNS53TF gnm\_782**

TAAATGGATGACCCGGCTTTTTTGTTCGGTGGTTGATTCTCATCGGTTTCAAACAAGA  
AGAAAGAGTCCGACTCTCTATTTACTTGTATGGATTGAGAGAAAAATCAGAGAAGGCCTT  
10 CGTCAGCGAAACTGAAATATGCCCCATCGTCACCGATGATCAGATGGTCGTTTCACTCGAA  
ATCCGAGCAATGTGGCAGCCTTTTGCACCCTTTGAGTAAGCTGAATATCCTGTTCACTTG  
GGCGTACCGTTTCTGAAGGATGATTGTGTGCCAGAATGATTGCCGAGGCAAGATGAGAGA  
CGGCTTTGTGCATGATCAGACGGACATCGGnCGAAGTCTCCGATACACCTCCTCGGCTAA  
AGGTTCTCATGCTG

15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 783>:

**GNMNS55TF gnm\_783**

GTAATTCTGAAGAAGCATCCGGCGGCACGATCTTTCTGGACGAAGTGGGCGAACTGCCTTT  
GCCACGCGAGGCGAGGCTGCTGAGGGTGCTGGAGACGGGCGAGTTCATCCCCGTAGGAGC  
20 CAGCCAGTTCGCAGAAGACGGATGTCCGTATCGTAGCGGCGACGAATGTGAACCTCAAGGA  
GGCGGTAGCGAACGGGAAGTTCCGGGAAGACCTCTTCTTCCGGCTCAATACGGTACCGAT  
CGAGGTGCCTGCGCTGCGTATGCGACCGGACGACGTGCCCTTGCTTTTTCGCCGATTGCG  
CGCCGACAGCGCCGAGAAGTATCGGATGCCTCTGCTGCGCCTATCGGACGAAGCCGTACC  
ATATTAATGCGTTACCGCTGGCCCGCAATGTGCGACAGCTGC

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 784>:

**GNMNS57TF gnm\_784**

GCCATTGTGGACGAACCTCTACCGGCTTGCCGGTATCTATAATACCTGTATTATCTGTGTA  
CTCCATTTTGTCCCGAACGGGATTAACCTGCGTGGGCATATCGGTTCCGGAACCTCAGCGC  
30 AAGTCGGCGGCCATCCTCTCCATAGAGAAAGATGAGAATCCGGCTTTGTCGGTCGTAAAA  
GCACTTAAAGTAAGGGATGGAAGCCCGTTGGATGTACCTTTGATGCTGTTCCGGATGGGAC  
AGGGAAAAGGAAATGCACGTTTACCGGGGAGAGAAATCTCCGGAAGACAnAGAAAAACGG  
AACTTACGGAATTGGGACAAATCGCAnAAGAAGTCTTTCACGCnCAAGAGCATTATCT  
TACAACGAACCTGGTCGAAAGAATCATGCAnACGGTCGACGTCAAAGACCGTACGGCCAAG  
35 AGTTATATCAGTTATATGCGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 785>:

**GNMNS59TF gnm\_785**

CGTGATATGTGTCCGAGAACGGCTTGCGTCATACCCCCGAACGATACAGCATTCTTGAA  
40 GTCGCATATAATCTGAAGAAGATATTCACGCCGGACGACTTGTTTCGATCTCACTCGCGAG  
AATGGCTTGCCGTGAAGTCTTTCTACGGTCTATAATACCCTTACCTTGCTCGAACGCTGC  
GGGATCGTTTCTGCGTTTGCCTTCTCCCGAAACCAATATCAGTACTTGATGGCTTCATTT  
GCAGAGCAGTTCGCTGCTTTTCTGTACCGAATGTGCACAATTTTCTACCTACTACCGA

CGAAATGTGAAGTCGATACTGGCCGACAAGGATCTCAGACCACCACGCTTCTCTTATAGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 786>:

**GNMNS63TF gnm\_786**

5 GCACACCTCCTGCGCGATAAGCCTTGATTATCGCCTGACGGATTTTTCCGGATCGAACG  
ACTGCACATGACCATCACGCTTTACGATGCGAAGGATTACCTCTCCATTGTAATACGTT  
ATTGTAAAAAATACTTCCTGAGATCTATTCTCTTAGTGCCGGGAGACTCCTTTCTCTCG  
AGGTCTTCTCTCCATACTTTATAGGCAACTCGTAGAGGCAGGTATTCTGGCTTACTTCAT  
10 CTCTTTTCTGTTTGTGCGGCCTTCCCATTAGCTCCACCTCTAATAGTGGAGAATGAACA  
GTGGCATCATTTGGAAAGCGACAAGAGTCCGCATGTCAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 787>:

**GNMNS65TF gnm\_787**

GTAGGCAGGGGATCCCCCTCAAATCCCAAAGTCTTGTATTGGAGCGACTCAGCTCTCA  
15 TACTAAAACTCCCCCTCTAAGCAAACATTTAGGACACTATTGATTTGATAGCGGTTTT  
TCTATACAAACGATGATCCCGGCCCCCTGCTTGAACTGAATTTTGACACACCCTCTTCT  
GGTAGTTGGGGTTAATTTAGGCCTTGCGTTTTTTTTCTGCGGAAAGGTTGCCGTCTTAAC  
CATAAAGAGATGAGACTTTATTGAAAGAGCATATCGGACGAGATCGGCTTGAACCTTTCT  
20 TCTCCCTTGAGCCGTATCATTACCCTGCTGTAGTTCCAATAAGTAAGCCAGCCACCTGT  
ATGGCTCCGACCCAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 788>:

**GNMNS71TF gnm\_788**

GTATGGTTTGAGTGACTACGAGGTTGAGGAGTGCATCAACGACTCCTTGCTTTTCAGTGA  
25 ATTCCTTGGCTTGGACCTCGGCTTCCCTTCCCCGACCATAGCACGATCAGTCGTTTCCG  
TAGTGAACCTACTCGCTTGGGGATTATGGATAAACTCCTTCGGGAGCTGAACAAGCAGTT  
CAAGAAGCACGGCATCAGCCGTATCGATCAAGGCGCCATCGTTGATGCGAGCATTGTGGA  
TAGTCCTTACGCCCTGATGGCAACGTGGTCATAGAAGTGGCTGAAGATCGAGAGGATAC  
TCGTTTCGGAGGAAGCTCGTACACAGCCAGGAGGCTTATCATTGTGAACCTCAAGAGTGGCA  
30 AACCGGGAGTAGACTCGGAGGCTCGTTGGGTACGCAAAGGCAGGCACTATCGGTATGGAT  
ACAAGAAGCACGTCTTGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 789>:

**GNMNS73TF gnm\_789**

35 GTTTTGGAATATAATATCGAAGTTCCGGACAGAATAGTCCGTTTTACCTTCCTGTATCGG  
CATAGCATCCATCTCTCTACCCGATCGATACGTACATCGAGGTAAGTGAAGAGTAGCAA  
ATTGCTGAATACTTCACTTATGGGATTATATATGCTCGATCCGATAAGCAGAAAGACTAA  
ATAAGTGAATAGATCAATTGTTCTTCTGACAAGAGATAAGCTCCCATATGATTACAGA  
GGCAAGTCCCAGTTTGAGGATTATATGTGAAG

40

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 790>:



**GNMNS77TF gnm\_790**

GCTCACAGCTCTATGAGATGGAGCTACAGCGCCGACGAGCTGCAGAGGCCAAAGTGGAGG  
CCGGCAAGAAAAAGATAGAGTGGGGATCGCAGATTCGGAGCTATGTATTCGATGATCGCC  
GTGTGAAAGACCATCGTACCAACTATCAGACGAGCAATGTCAATGCCGTTATGGATGGCG  
5 ACATAGATGAATTTATCAAGGCTTATCTGATGGAATTTGCCGGTGAAGAGGCGTAATCGA  
CTTTCGCTTCTGAAGGAAGGGATTTCGTTGATCAAAGGAAATGGGGCAGGCTTGTATTGGC  
AGTCGGCCCATTTCTTTTTTGTGGGAAGTCCGGAATGTCGCCGGTTTATCGGCTCATAT  
ACAATTATACGCAGGGTTATTGTATCTCATGTCCTTTCGGGTAGTAGGCACTATATTCCT  
GCTACAGGACGGnGAAATAGCCGACTTT

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 791>:

**GNMNS79TF gnm\_791**

CTCTTCGGATTAGATACGGTTTGTATGCTTCTCGATAAGGAATTGCTTGACTTTGCCTAC  
TCTCTTCCCTTCGAATACCGCTACGGAAAGCGTATCTATGATGATATTTGTCGTGAAGT  
15 TATGGCGAGAAAGGCATTTCTTTTTCGGACGATTGAACTGCATGGCATTATCTCTTCT  
CCTGTTTACCGACTCAAACGATCTCTAAAGCCTTTGCTTCGACCATTATACCCCGTCTCT  
TCGATTTGGAAAGGCGATATTATCGGTTTTGAACGGATCATGCAACCTGTATTACGACAG  
GTAGAGCAAGACGGACGTTTCCACCCGACATCTATAAATGGGTTATCCTTCTGCTGGTAT  
CTGCTTCAAACGAnAAATTGATTGACCGCC

20

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 792>:

**GNMNS83TF gnm\_792**

GCCAAGTTCTTCAGCAGGTCAATGCCTTCGGCAAACCATGACGGGGCATTGAACAAACTG  
AAAGGCTTGATCGTGAAGAAATGTCATCGAGTACGGGAACGACTACGCCTGCCACCTTC  
25 TTTGCCGAGAGCTTGACACCTCCACACTGATCAGGTGCGGTTTGAATTCGTTCCACAGG  
CTTACCATGCTTCGGTAGCCTACGATCTCTTCTCCAGTTGGCGTTCCAATCGCTCCACC  
TCGTCTTCGTTTCGCTTCACCTCCAGACGCAATGCGCTCTCCTTGCTTTTGATCGTCGGT  
AAGGTACGCTCTCGCATCTTAAGCTGCTTT

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 793>:

**GNMNS87TF gnm\_793**

GCTTATGGCAATGCTGCCCAAGGAATCATCGACTTGGCCGAACAGGCAAGTGCTAAGATC  
GTCGGTATGGGCTTTATCATAGAGAAAGCCTTTCAGAACGGGAGAGAGGCTCTACAGGAA  
AGAGGTATAAGAGTGGAGTCGCTCGCGATCATCCGAAGCCTTGACAACTGCTGCATAACT  
35 ATTGCAGACGAAAACGAAGACTAACCATAACCATTCGAATACACATCCCGTCCGCTGGC  
TCAGTGGGCGGGATGTTGCTTTTTCTTCCCTTTTCTCCGAATATAAAGACGTGCCACTT  
TTCGTTTCTCATTCCGAAGGCATATTGAGCCCTTTGAAAAAAGAGAAGGTCTCTATAATG  
CAAGAATCCGAGTACGTGCTACAGATATGGCCGAGCGGCAGTTAGAGACTGTCTCCTCT  
GTCCTCAAGATAATAAGTGCCACGCAGGATTCGCGTTTAACGGGAGG

40

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 794>:

**GNMNS89TF gnm\_794**

5 CCACTTTTTCGGTAAGGACAGTATCGTACGTTTCCACCGCTCGGCTTTCCGCCTGTCCCT  
GCCGGTGATCGGCGGCATAACGGCTATAGGGGTAGCACCTTTTCGCCATGCACCTTACGG  
GCAGTCTGGTCAATATCATCATGAATCGTTCTTTTCGTATCCTACGGCGAGACAGCAGATG  
CTACCGACTTGCCCATCGGAGCATTGGGATTATCAATGGCTATGCCATGCTCTTTTCA  
TGATTATCATCGGTGTGGCTCAGGGGATGCAGCCGATCGTAGGTTTCAACTACGGnGCTA  
AAAATCCGGGACGGGTGAAGTCGGCCTATCGCTACAGTTGTGGCGTCAATCTACTGGTCA  
GCTTTCCTCGGTTT

10 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 795>:

**GNMNS91TF gnm\_795**

15 GCAGATGGCGAACGGATTTGCCAGCTTGTTATCGCCAGACATGAACAGGCCGAATGGGTG  
CTTACAGACGAATTGGCCGATACGGAACGAGGTGCAGGCGGATTTGGTCATACGGGCAAA  
GAATAATTTTCAATCTCCCTTCAACTACCACAGATGCGGATCCATTCTATCATTCTCCTG  
CTGTTTCTTTTAGTTATTTCTCTGTAGCCGGAAGTATATCCATTACAGACAGTACAGCA  
TCTAAGTTCGACCGATATTCTATGAAGGTGTCCGGCAGCGAGAACAGGAGAATTATGCT  
GCAGCTTTCGACATCTTTCGCTATTGCCATCGGTTGAATCCCAACGATGCGGCTCTGTTA  
TCGGAGTTGGGAAAACGTATATTGCCAATGGGCGTCAGGAGGAAGGAACCCGGTA

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 796>:

**GNMNY45TR gnm\_796**

25 CGATTATGAGCGCTGTGCGTACGCCTACGCGCCAGCTCTCAAGCCGCCGGACAATTGAAT  
GCGACGATAGTTTGGATTCCATCAATGCCACTACCAGCGCGATTGTGAAATACGTTTCCC  
AGCGTGCGGGCATCGGCATCAATGCCGGACGTATCCGCGGTTTGGACAGCGAAATCCGGG  
GCGGCGAAGCGCGGCATACCGGCTGCATTCCCTTCTTTAAATGTTTCAGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 797>:

**GNMNY56TF gnm\_797**

30 GTCCGCTGATCGAGAACCGCGCATGAAAACGGTAGTCTGGATTGTCGTCTGTTTGCCGCC  
GCCGTCCGACTGGCGCTGGCTTCGGGCATTTACACCGGCGACGTGTATATCCTACTCGGA  
CAGACCATGCTCAGAATCAACCTGCACGCCTTTGTGTTAGGTTGCTGATTGCCGTGCTG  
GTGTGGTATTTCTTGTATTAGATTATTATCCGCGTATTCAATATCCCCGAAAAGATGCAG  
CGTTTCGGTTCGGCGCGTAAAGGACGCAAGGCCGCCCTTGCCTTGAACAATGCGGGTTTG  
GCGTATTTTGAATGGCGTTTTTGA AAAAG

35

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 798>:

**GNMNZ15TF gnm\_798**

40 CGCGACTGTTGCGATAAGCGCGGAGGCGATGATTTTTTTCATGTGTGTCCTGTTTGGGTG  
GAAAATCGGTTTTATTGTATCGCCGTCGGGAATTTTGGCAAGCATTCTGCCGGCAAATCG  
TGATGTTTACAGGGGCGAGGTGTGCAATTTGCGGACAAATGCGAGGCTGTTGGCGACTGG  
GTTGCCTTTGTTTTCGACTTCGTGTTTCGGTTTCTACGGTCAGCAGGCGGCGGTTTTTGTG  
TTTGTTCAGGCTCAATTCGGCTTGTGCGGGTGTGAAAAACAGGCGGTGTTTTTCGGCAAA

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5 GCGGCGGGCGGGCTGTTGGCGGTTTTCAAATCTGAAGCAGCGATCGTCCAGATGGAAG  
CGTCGCACGCCCAATACGAGAATCCGTGCGGCAAAAAATCGGCGGCATCGGTAACTCG  
GCGGGGCTGCTGCGGCTGAAGTCGTGCCGTTTCGGCGGCTATCAAGGCGGCAACGGTGCGG  
ATTTGCGGAATCATCGATTGCTGATAAGTGTGTCGTCCCGCCCTGCATCGAGAAGCATG  
GGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 799>:

**GNMOB22TRB gnm\_799**

10 ACTTCTTAAGGTCAAACATCTACTACTGATTGACAGCGAATTAGCATTGCGAGGGAAAGG  
TGAAAAGAATTTTGGGAGGGGAGCGAAATAGAATTCGAAATTCGACGTACATAAATAGCG  
GGAGTGTTTCAGCGGCGCGATCGTGCATTCCCCGCACAACGGGCTAATGATCCATACCTA  
GCAGTGAGTCCAATTGAACAGGGGAGGTGCAGGGAAATTGAGCTCCAACAGGGTGACGAG  
CCGTGCGGCGCAGATTTGAAATTGAGCGACTCACTTACGGTTAGGCCGAAGGCGTTGCAA  
15 TAGGCATCGGAGGATTGAATTTATGTACGCCGTAAAACGTGGGGACGAGTCGCGGACAGG  
GGCGAAAGGTCAAATAAATCTGGAGACAGTCGGCCTCTTTTGAAATCACCCAGGCAGCG  
TTCTGAGTAAGATATCGACGGGGGCAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 800>:

**GNMOB25TE220 gnm\_800**

20 ATTACTGCCCAAGTGGAAAGTGGGCAAAGTGTACGAAGGCACTGTGGTGCAAAATCCTCGA  
TAACAATGTCGGCGCGATTGTCAGCGTGATGCCGGGCAAAGACGGTTTGGTACACATCAG  
CCAAATCGCCACGAGCGGTACGCAATGTCGGCGACTACCTGCAAGTCGGTCAGGTGGT  
GAACGTGAAAGCATTGGAAGTGGACGACAGAGGCCGTGTCCGTCTGTCCATCAAAGCCCT  
GCTGGACGCGCCTGCCCGTGAGGAAAATGCCGCCGAATAACGCTTAAGGTGAAAGTGCCG  
25 TCTGAACAGGTTTCAGACGGTATTTTTTACGGGTATCGGGAATGAATGGGGCTTACAGCC  
ACAGGACGGCAAGTTTCCATAATGCCCGGGGATCCTCTAGAGTCGACCTGCAAGCATG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 801>:

**GNMOD17TRB gnm\_801**

30 AGGTGTACACGGTTCCCGCCATTAGTACTATGTGGTTCGTGGTTCCGGCCCCGAATGACA  
TCCTGTTGACGATAAACCTGCTGGTCCGGCACCGTGTGGTAATTCGTGTGCACCCTAGAT  
TGATAAAGTTGACCCGTGGATCGGCAAATATTATGTTGACGGCGTCGTGTTGTAAATTGT  
TGTTGACACCTGGGCAGTGGTTTGTGCCACTGTTGGTAACTCCGTTCCGGCTGGAGTCCT  
ACGTAGTAGAGGTAGCCGGCCGGATGTACTGTTTCGTGACGAAGACACGTGGAACATCGGC  
35 TCGTACGGCTAGTGGGCTGGTAATAGGCATGTTGTGTGTACTCCCCCTGACACCGACACC  
CCTTAAATTGACACCGCTAATGCCTGGATGGTGGTTTATGGTCGTTAGTACACACCTGGT  
AATAAACATGTTCCCCCTGTTACTTCGTCTTAAACGGATCCTCATACCGTTGCTCGTACT  
GAGCCCGATTCTGGCCCCAGTACTTAGACGTAGCCCTAACCTCCTGTTGAATATGGTGCC  
TGTTCTGCTCGAAATGATGGGGCTGGAAACGTTGTTGACGACCTTGTAAATTGAAAAC  
40 CCTAATCCCTATGTTTAAATGGCGTAACGTTTCGATTTAAGCCTAAATTGACAATATTTGG  
TTTGAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 802>:

**GNMOD53TFB gnm\_802**

GGTAACGCCTAAAGCGCAAACCCAACTGGACGCCGTGAAGAAAACTGCTGCGCGCCATC  
TTCGGTGAAAAAGCATCTGACGTAAAAGATACTTCATTGCGTATGCCTACCGGCATGAGC  
GGTACCGTTATCGACGTTCAAGTCTTCACTCGTGAAGGTATTCAACGCGACAAACGTGCT  
5 CAATCCGCCCCGATGGGATTTGATGCGTTGCGGGGAATTGATGGGGCCGGGACGAGGAC  
GTTGGCGCGCAGGTTGCCGAAGCGTTCCCATTCGTCGGCGGCGACTTTGCACAGGTAGTT  
CAACGCGGCTTTGGACGCGCCGAAGCCGCCCCAGTAGGCTTTGGGTGTTTCGCCGTGGCT  
TTCGCCGACGAAGATGACGGACGCGTCGGGCGACTGCTTCAGCAGCGGGAACAGGGCGCG  
GGTCAGCCCCATAGGTGCGACGGTGTGATGCGGTATTGGGTGACCCA.TTCGGCGACGGT  
10 TTGGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 803>:

**GNMOE03TRB gnm\_803**

GTTCCCCTTGTAGGTCGCAACCGAACCCCTATAAATTGTTGAATATCGTTGATGGATGTGT  
15 GATTAGTACTAGGAATGTTGTAAGTCTTGTGTTTCGCTTAATATGCCGGT  
AGGAGAAATTAGTAGTAAAGGTACCTTTAAATGCGTGGATAAAGCGGCTGAAATTATGTC  
TAGAAATAATAGCGTGTATTTGGTAGGAATAGATCGTTTACTTAACCTATGTCAATGAC  
CTCTTTCCAAAACCTACGAAACCAAACTGAAAGATCGCAATATGGCA.CCCCTCCCTAT  
GAAATCCCATCCTATGCTTGTTATAGTGCTTAGATGGTACCCCTTCGCCCTACGTTGTTT  
20 GAAATTGTTTAAACCTTGTCCTCTTCACACAACGCTGGATCCCGTGTGTACCCCTAGGAC  
CTCCCAACGGTACCCGTCTATACCCATTTTCGTTGGATGATACTATTGTTGCCCGGAT  
GACGCCGTTTCGACGATTAAAGTTGTTGTAAGAAAAATTGTTGGTGCGGCTGGTGATGAC  
CCGGTATTTAACGTTAATTGGGCCATGGGTGCACTGGTAGAATGTGAGCCGTTGA

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 804>:

**GNMOG34TF gnm\_804**

CGCGCCGAAGAAATTCGCCGGGGCCGCGGATGTTGAGGTCTTGGCGGGCGATTTCAAAGC  
CGTCGGTGTGTTGCTAGATGACTTTCAGCCGCGCTTTGGCGAGTTCGCCCAGGGTCGCC  
GCCATTTTCGACGGGTGGTGTCCGTAGTCGTCCACCAAGAGCGCGGTCCCGCGGTTTGGC  
30 AACTTGATGTCGCGGTATTTTTGGAAGCGGCGCGGACGCCCTCAAAGCCGAGCAAGCCT  
TTTTGGATCGCTTCAACCGATGCGCCGACTTCCAGCGCCACGCCGATGGCTGCCAATGCG  
TTCAGCACGTTGTGTCTGCCGGGCATATTCAGCACGACTTCAAACGACCCCTGCTCATGT  
CCTTTTCATTTGAACATGGACGGTGAATTTTCATTTGCGCGCCGACGTTTTCGATGTCGGTG  
GCGTAGATGTCGGCGGTATCGTCCAAACCGTAAGTAGCATAAGGTTTGTCACTTTGGGC  
35 AAAATCGCGCGGACGTGTTGCTGTCAATACACAAAAGGCTTTGCCGTAGAAGGGCATA  
CGGTGGATGAAATCGATAAACGCCGTGATGCAGTTTTTCGACGCTGTGCCCGTAGGTATCC  
ATATGGTCTTCGTCGATATTGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 805>:

**GNMOG50TR gnm\_805**

TTTGACGGTTTCATTATGGCGCAGCAGCTTCCCGAGCCGCTGGCTTCGCAGTTTGCCGCG  
ATGAATCGGGGCGACGTTACCCGCGGGGCTGATTGAAAACGGCGGCGATGCTGTCTAAAC  
AAAATCTCCGTCTGAACAAAATCCCCATCGGATAAAAAATGCCGTCTGAAACGTTTCGGG  
TTTCAGACGGCATTGTTGTCGGGTACGCGGCGGTGCGGCTTATTTCACTTTACCTTTCAA  
45 CGCGCCATATCCTGCCGCGTCCATTTGTTCCAGCGGGATGAATTTCAAGCTCACGCCGTT

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GATGCAGTACAGCAGTCCGCCTTTGTACGCGGGCCGTCTGGGAAGACATGTCCCAAATG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 806>:

**GNMOH10TR gnm\_806**

5 CCCGTACAGCCCGTCAAAATCCGTCGCGTTGTTGTCGGGCAGTAACACGCAGAGAGACGT  
TCAGACGGCGTCGCCCCTTTCCCAAAAAACGCCGTTTAAAGTAAAAAATATTTTAAAC  
AGACAGTTGATATTGACAAATTCAAACCGAAGATTTTAAATGCTGCCAACCCAATCCAA  
ACCAACCGACAAACTTTGGGCGTGGATGCCGGCATCCCCGTATTCGCCCTGCTGCCCGGC  
10 AGACGCGTCAGCGAGATCGACTATATGGCGCCGGTGTTCCTCAGACGGCATTATTGTTG  
TTGGAACGCTATCCCGCCGCACTCTTCCTGCTGCCTGCCGCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 807>:

**GNMOH12TF gnm\_807**

CACTTTTATATAAATCATTGATCCCATTACCCCAACCTCCAATTTTTTGCCAACCATCTA  
15 TTGTATATTCAACACCTAACTTTGTTACATCCATTATCACAGATTGTAAAAAGTAAAT  
GCTTCTCTTTAAAGATCCATCAAATCCTTTATCTAAAGCAGATATTAAGTCTTTCCAT  
TATCCCTTTTCGCTACCGTTCCGATTATTTACTGCTTGCTCCGCCTAAAAACGTCGTATT  
TAATATTGGAGTGATTTGACACATGGCACGTTATATTGGTCCTAAA

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 808>:

**GNMOI35TF gnm\_808**

GAGTTTGCTGTAAGTGGTTTTACCATTATGGCGGCACGCGTAAACATTTGCCGAAAATA  
CGGTCTGAACCGCTGTAACAAGCAACATACTTCCAATTATTTTAGATACGCGCATATCAA  
CCTCCTTTATCGTTCATCTTCAAAAAAGGAAAGTTTTTCAATAGCACTTCAATCAATTC  
25 CTTCAATCCCCGGCCAAAATTGGACGGTAATTCCCACCCACCCCTACTTTGATTTCAG  
AAATATCTTTAACTTCCGCTTAAAGGCGGACACTTTGTCCATATCGTCATCAATTCCT  
GTTTGCCGAACGGTATTTTCCGCTTTTCCAAAACCTCGTCATAATAACAAGATAnATTAA  
GCAATAGCCCCCAAGCACTATTTGCAATTACGACTAATCTATGTTTTTCCCTAGTTAAGT  
AATCTGCnACGCTATCATAGATTGCCCT

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 809>:

**GNMOK36TR gnm\_809**

CCTTGAAATGAAGTATCTCTCTTATAAACTATCTTGGTAGCTCTATAGTGTTCGTGACC  
CAGTGGAGCTCCAAGCACATCTGTGGAAGGTAATTCTTCACAGACACTGTGGGATTTTCAT  
35 TGCTGCTTTTGGGTTGTGACTCAGCTCCTTCGGTAAATATAGCCATTACATACTTTCTC  
CAAGAGCTGAATTATAGTAATCAATTTTTTAACTCACAAAACATTTTGTACAGAAATT  
AACCCAAAGGCTTTAAATTATATCATTTCTTGATAGATCACTTATATTTCTATTTCTTG  
ATTTCTTACTGGATTTTAAAAATAGTCCCCTTTGGTCTTTCACATGATCTTATTTAAGCC  
CCTTTCCTTAGTGTGACTTCTTTACAATAAAGTTATTGGGAAAACTCATTAATTCAT  
40 TGACAGAAGGTATTGAACTCCTGGGTGTTTGAACAGATATAACAACGCTGAAGCTGAAT  
TGCGCCGTGTATCCTGCTGTGGACAAATCCTGCCGCGGTTCGGCGGACAAACCGTATTCC  
TACGACAGCAGCGACCGTTTCCACTACCGCAACAGCACAAATGTTTTGAATGCCTCGTTT  
GAGAAATCGCTGAAAAACAAATGGACGAAACACCATCTGACTTTGGGCTTCGGTTACGAT

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GCTTCCAAAGCGATTTCCCGCCCCGAACAGCTTTCCACAATGCGGCAAGGATTTCCGGAA  
TCCACGGGATTCGATGAAAACAATCAAGATAAGTATCTTTTGGGTAAGCCCGAAGTCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 810>:

5 **GNMOL05TRC gnm\_810**

CCCCAATCGACCGACCCAAAACAAATCACCCCTGATGTAAGCCGTAGTAACCTCGTTGT  
ACGCCGTGTGCTGCACTGGCAACGATCCTCTTGTTTAAATACATGGGTAATTCTCCTGAC  
TTGCCGGACCCCTACTTAACACATCGACCTGTGATGGCCCGTCTCTTTCTGTGCGCTCC  
GTGTATTTGTTAGCGGCCCCCTCTTGTAAGACGTGATCCGGGGAAGGCGGGCAACCGTAAG  
10 TATTCGACGCCCCCTCGTTTAAATGTATGCAACGTTCCGTTGATTACCTAGTTATCTTTTT  
CTTAACATTGGCACTGATTCTACTAAAACTAAGGCGGGAATCCGGGCACACCGGTCGGT  
AATAATTGCAAGGTAAGGTCGACATGTGTTAACCTGTGTTGGAGGTAATCCACCTAG  
TAGATGGGGTGGACCGTTCCCGCCGGTGGTAATCCGAAACCGAATTCGTCTTAAATTGCG  
CGTTGCTGGTGATGAAGGTAATAGGATGACGCTCAAATGTGTGTTCCCTACGGTAAGG  
15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 811>:

**GNMOL83TR gnm\_811**

CTTCGCCGCCGCGTCCGAACACGAAAGGGTCTCCGCCTTTCAAACGCACCACGCGCCTGC  
CTTCGCGGGCCAGCCTGACCATAAGCGCATTGGTGCTCTTGCGGGGTGCGCTCGCCCC  
20 GGGCGCGCTTGCCGACAAAAATCCGTTCCGCATCGCGGCGGACGAGGGACAGTATGCCGT  
CTGAAACCAGCGCGTCGTAAAGCACACGCTCGCTGCTGGATTTCCTGCAGCCCTTTGA  
GCGTCAGCAGCCCCGCATCGCCGGGACCGCGCCGACCAGCGAGACGGAGCCGCTTGAT  
CATTTTGACGACTTTGTTCCAATTGGCCTGCCAATTCCTGTTCCGCAAGGGTGTTTTGCC  
GGTTTTTGACGAnGGCGGCGAAACGTCCGTTAAACTGCTTTTCCCAAAGCGGCGGCGTT  
25 CGGTAACGGATTTTCACTTTGCCCTTGACGGCATCGCGCCACCTTCCTGAAATTCGGCCA  
TATCGCCCCAAGACGGCGGCGAGGGCTTTCAGCCTTTCACGCAGCAGTCGGGCGATGA  
CGGGCGCCGCCGAACATTACCTGCCTCTACATCCGTGAGGCGGAAGCACTGGGCTTGGGA  
CACGCCGTCTTGTGCGCCCGCGCCGATCGGAGAC

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 812>:

**GNMOM42TF gnm\_812**

GTCCCCCTGGAGGGGGCGGGCTCTTCGTTGCGGCGGAGGTTGTGGTCTTCTTCGGGCTG  
CGCCTGTTTTTTGCGGAGCGCTGCGGCCGGCCCGCGCGTTTTTCTTCGGCTTGCGCCTT  
TTTTGCGTTTTCTGGGTTTGCTTCGGCGGGCTGCCTTTCGGGTCCGGGCCTTCGCGTTG  
35 CGGTTTTTTGCGGTTCTGCTGCGGGCGGAGGGTTGCTGTCCGGCGTTTTTTGGGTCTT  
GCGCGCCTGCTTGGGTTGCGGGTGnGTGCGCTCGGTGTTGGTGGGGCCGGTTTTTTGGAA  
GGTGTGCGCGTGCGCGCTGCGGTGCGGCGGGCCGGTCGGGGCCGCGCGAACGCGCG  
GGTCGAACGGTCTGTGTAAGGCTCCTTCGGGTGTTGCCGGAAGTGCCGTC

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 813>:

**GNMOM51TF gnm\_813**

ATCAAATAATTGATTTTATTAGAATCTATTGCAAAGCCATTGCGGTTACACAAGAATG  
GCACATnTChATAACTGATGAGGATTTATACCGATGAAGACAGACATTCAAACCGAATTA

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ACCCATGCCCTACTACCACACGGATTATCTGTGGGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 814>:

**GNMOM81TF gnm\_814**

5 CGTGTCCGCGCTTTCGCCCGACGATTGCGGCTCAACCAAAAATGGTCTGTTGGGACAAAAT  
CCTGCGTTTCGCCCTTTATCAACAGGCGGACGTATTGCAAGGCATCTACTTCTTCAGCGA  
CCGTTTCAATATCGACGAAAAACGCCGCAACTTCGACTTCTACGAACCGATGACCGTGCA  
TGAAAGCTCGCTGTGCGCCCTGTATTCACTCTATTCTCGCCGCCGAACTGGGCATAGAAGA  
AAAAGCGTGGAAATGTACAGCGCACGCCCGCTGGACTGGACACTACACAACGACACGAAG  
10 AGGCTGCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 815>:

**GNMOP70F gnm\_815**

AGGATCCCCGCCGCTTCGGTACGCGCCCTGGAAATGTTGGCATGGCTGCCGGGGAAACTC  
15 GGTTTCCCTGTCCCCGATGCGCGGGCGGTTCATCGAAGGCCGTCTGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 816>:

**GNMOP96R gnm\_816**

ACGGACAAAGCGTGATGGTCTGCGGCATCAGAAAGGGCGCGACACCAAAGAAAAAATCC  
20 GCCGCAACTTCGGTATGCCCCGTCTGAAGGCTACCGCAAAGCCCTGCGCCTGATGAAGA  
CGGCAGAAAAAATTCGGCTTGCCCGTAATGACCTTTATCGATACGCCGGGCGCGTATCCCG  
GCATCGGCGCGGAAGAACGCGGGCAGTCGGAAGCCATCGGCAAAAACCTGTACGAACTGA  
CGCGCCTGCGCGTTCTGTGTTTGTGTACCGTCATCGGCGAAGGCGGTTTCAGGCGGTGCGT  
TGCGCGTGCGCCCTAGGCGATTACGTCAATATGCTGCAATACTCGACCTATTCTGTTATCT  
25 CCCCCGAAGGCTGCGCGTCTATTTGTGGAACCGCCGAAAAGGCGGCGGATGCGGCTC  
AGGCTTTGGGCATTACTGCTGACCGCCTGCAAAGCTGGACTTGGTTCGATACCGTCATCA  
AAGACCATTGGGCGGCGCGCATCGGGGATTCTGGGCAAAGACCGCAAACCTCGTGGACAT  
CATCGCCGCTTTAG

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 817>:

**GNMOS68TRB gnm\_817**

TAGCAATTATTGTTTTCGAAATAAGGTGATATTGCCATCCCGGCTGGCCCTGGCATCCCTC  
ATGCGGGTGAATGCGTGGAATGTTAAGGTTGTAATTTTAAATTTGGTGAGTTCTCGATTA  
CCGTTGTTGTTAAATGTTCAAACCTTGTGTTGGTAAAGTCCCGAAAGATGTATCGCAAG  
35 TTGCCCCCACGAAAAAGTTGACCTCCCAAAGAACTGGTCCCCCACTGGCTTATACCA  
CCTCGACCCCTAACTGGTAATATATCGTCCGCTATGCGTCCTAAAGGTACCCGTGTTGTT  
GAGTAGGCTAAGTCGCCTCCGCGTGTGAGCCCGTTGAAGGACTCAACTCGCCCTCTGTC  
TAACTCGCTTAAAGGTCGTCTTTATACATACCCGTAGCAGCTGATGGTGAGGTGGGCACC  
GCCCGAACTCAAATTTGTTGGGTTTGTAACCTGCCCCGTTACCCCTGGTAAATGGAACACC  
40 TCCTATGTAAGATCTGATAACCCCTCGCCCCGTTCTGTGGCCCGGATACTGTGTACCGGGA  
GAGTAGGGTGGCCAAAGTGAGTAATGTTAAACGATTTATGTTTAAACGTGGACGGCGTG  
GACCCC

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 818>:

**GNMOT05TF gnm\_818**

5 GCGGCAAATCCACCTACATGCGCCAAGTCGCGCTGATTGTTTTATTGGCACACACCGGCT  
GTTTTGTGCCTGCCGTTTCAGCATATCGGAAACTTTTGGTATTGTGGCGTAAGAATATCG  
AAGCCTGACAGCCTGAAGCAGTTGTTTTGCTATTGTTCTTTAACGGGCGGGACGCCGTCC  
TTCGGCGCGGCATTTTCGGCGGGCCGAAACCCTTTCCGGTGAAAACGGATTTTGATTGCCG  
CCCGATGCTGTCTGCAAGTTGCGGCGGCTTCCGTATGGTTTGAATTGTTGACAGGATGAT  
10 TGGAGGGCTTATGCAGTTTCCTTACCGCAATGTTCCGGCTTCGCGTATGCGCCGTATGCG  
CAGGGACGATTTTTTCACGCCGCTGATGCGCGAACACACGCTGACCGCCGATGATTTGAT  
TTATCCGGTGTTCGTATTGGAGGGTTCGGCGCGGAGGAGGATGTGCCTTCTATGCCGGG  
TGTGAAGCGTCAAAGTTTGACAGGCTGCTGTTTACGGCGGAAGAGGCGGTAAAGCTCGG  
TATTCCGATGTTGGCACTGTTCCCCGTGGTTACGGCAAACAAAACCGAGCGTGCGCAGGA  
15 GCGGTACAATCCCGAAGGACTCGTGCCGTCAACTGTCCGCGCCTTGCGCGAGAGGTTTCC  
CGAACTGGGCATTATGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 819>:

**GNMOT41TR gnm\_819**

20 GGGTATGCATGTTTGATTCCGCTTCTTTTCAGCCACGTGCGGAAGCCCCAGCGTTTGAAAT  
CGACAACCAGCTGCGCCCATTTTCGGCGTAGTACGGCGCAGGCTTTCGATGCCGTCTGAAA  
GCTCGGCGTGCAAGTCCACATCGGTTTTAATCGTGACCAAATCATACGACAGCGGCAGTT  
GGGGCAGCGCGGCTTGCAAGTTTTTCGCCACTTTGCCCTTGATTTCCGAAGCGTGTTCCA  
TCACACCAGCCAGCGAACCCTAGGCTTCCAGCCATTTACCGCCGTTTTTCGGGCCCCGGC  
AATTTTCGAGCTGAACGTCTATATGCCCGTTATCGCCTACAACCTCTTGCAATCCATCCAC  
25 CTGTTGGGCGACGCGTGCAACAGCTTCAACGAACACTGCGCCATCGGCATCGAACTCGTG  
CCGGnAAAAATCGACTATTTCTGCAACATTCCCTGATGCTGGTTACCGCATTATACCGT  
AAAATCGGTTACGAAAACCCGCCAAAGTCGCCAAAAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 820>:

**GNMOU02TR gnm\_820**

30 AGGTTGGCTTGTGTTTCATAAAAACTTATTACATGTAACGGTTTGAACGGACATTCCGTC  
GGGTCGGAATGTCAAAAAGGCGCGATTGTACCAAAGAAGTTGGACATAATTTGTTTGCA  
GGCTGAAGATTTGCTTAAAAATTTCATTAAGATGGGCGGAACAAATAGTTTGGGTACAGCG  
TGTTGAAATACCGCTTATCCCTTAAAATAGCGTCCGAAATTCTGTTTCGGACGGCATCAAG  
35 ACACACGGTAATCCGTCTGAACCCCCCATTTGACATCAACAAACAAGAGCATTGAATGAA  
ATTCATCGACGAAGCAAAAATCGAAGTCGCCGAGGCAAAAGCGGTAATGGCGCAACCAG  
TTTCCGCCGCAAAAATTCGTACCGCGCGGAGGTCCGGACCGCGCGACAGCGGCAAAGG  
CTGCAGCGTCTGGGCAGAAGCCGAAGATCACACCAATACCCTCGTGAATACCGCTTCGT  
TAAACGCTA  
40

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 821>:

**GNMOU06TR gnm\_821**

GGTAACTGACGGATCGGGCATTCTTAAATTACCCGTGTATCGCTGTAAATCTTAGAGAT



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GGCGGAATATAGCGGACTGCATCACCGCCCCGCGGATTCAACCATGGCGCGCCATGCCG  
ACATCCACATCACGGCGTCGGTTTCCAAAGAAGCCTGCCCGCTGGGGCTTGCCCCGACCA  
CCAGCACCAACCGCCGTCATGGCTTTGGGCGATGCGTTGGCGGTTCCTGCTGCGCGCAC  
GCGCGTTACGCCCCGACGATTTGCGCTTGAGCCATCCTGCCGGCAGCCTCGGCAAACGCC  
5 TACTTTTGGCGGTTGCCGACATTATGCACAAAGGCGGCGGCTGCCTGCCGTCCGACTCG  
GCACGCCCTTGAAAGAAGCCATCGTCAGCATGAGTGAAAAAGGGCTGGGCATGTTGGCGG  
TAACGGACGGGCAAGGCCGTCTGAAAGGCGTATTCACCGACGGCGATTGCGCCGCGCTGT  
TTCAAGAATGCGACAATTTTACCGGTCTTTGATAGACGAAGTCATGCATACGCATCCTA  
10 AAACCATCTCCGCCGAACGTCTCGCCACCGAAGCCCTGAAAGTCATGCATGCAAACCATG  
TGAACGGGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 822>:

**GNMOU37TR gnm\_822**

TTTTTACACGCAGTCCGAAACGTGACACGGAGTTTGCGGTCCGACAGGTAAAATGGTGG  
15 CGTGCTTATTGAAATTTGACAAAGGTCGTCTGAAAACCGAAAATATGGATTTGACACCA  
CCTTTGTTGTATTTGGTAAGTATATGTCCCGTTGTATAATTACGGAATTGCAATTCAAT  
ACAAAATACACAGGACACGCCATGACAGAATCCATCACATGAGACAGTACACAATACGAT  
GTCATGACTGTAGGCGCAGGCCCGTCAGGTTTGTCTGCCGCCATCACAC

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 823>:

**gnm\_823**

ACACCGTCTTGTTCCGGCGGTATGAATATGGACAAACAGACCGCCGACCTGCGTGCCGGCT  
GCGAAATCGTCGTCGCCACCGTCGGACGGCTGCTCGACCACGTGAAACAGAAAAACATCC  
ATTTGAACAAAGTCGAAATCGTCGTTTTGGACGAAGCCGACCGTATGCTGGATATGGGTT  
25 TTATCGACGACATCCGCAAAATCATGCAGATGCTGCCCGCCAACGCCAAACCCTGCTCT  
TTTCCGCCACCTTCTCCGCCCCGATACGCAAACTGGCGCAAGACTTCATGAACGCGCCCG  
AAACCGTCGAAGTCGCGCGCAAAACCGGCATCGCAACTCCAAAGAGAAAGAACCCTAAAC  
CGTCATTTCCCGCGAAAAATAGAAAATCAAAAAAAAACCTAAAATCCGTCATTCCCGCGC  
AGGCGGGAATCCAATCCGTCGGTTTCCGTTTTTTTTTTGAATTTGAGGTAATTTCCAAA  
30 CCGTCATTCCCGCGAAAGCGGGAATCTAGAAACTCAAAGCTGCAAGAATTTATCAAAAAAT  
GACTGAAGCTCAAAAAACCGGATTCTACGAAAACAGGAATCCGGAGTCTCAGGGCTGGC  
AAAACCGTTTTACCCGATAAGTTTCCGTACCGACAGACCTAGATTCCCGCCTTCGCGGGA  
ATGACGAAATTTTAGATTGCAGGCATTTATCGGATAAAACAGAAATTAAGCGTGACGAAA  
ATTTATCCGAAATCACAGCAACTTTTCCGCGTCATTCCCGCAAAAGCGGGAATCTAGAAA  
35 CTCAAAGCTGCAAGAATTTATCAAAAAATGACTGAAACTCAAAAAACCGGATTCCCGCGAA  
AACAGGAATCCGGAGTCTCAGGTTTGAAAAACCGTTTTTCCCGATAAGTTTCCGTACCG  
ACAGACCTAGATTCCCGCCTTCGCGGGAATGACGAAATTTAGGCTTCTGTTTTGATTTT  
TTGTTTTTGGCGGAATGACGAAATTTTAGATTGCAGGCATTTATCGGATAAAACAGAAAT  
TAAGCGTGACGAAATTTATCCGAAATCACAGCAACTTTTCCGCGTCATTCCCGCAAAAG  
40 CGGGAATCTAGAAACTCAAAGCTGCAAGAATTTATCAAAAAATGACTGAAACTCAAATAAA  
CCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 824>:

**GNMOV26TF gnm\_824**

GTGCCAACAAAGGCGAACCCCGGAATGAGGCCGATACCAATATTCTGAAAAACGTGCAA  
45 TCTGCCTTGCAAGACGCGACATTACCGTCGGCAACCTCGAAGGCACGCTGTTTGACGAA

**GNMOX61TRB gnm\_825**

10 GTTCCGTCCTTGATTGCGATTGGTCGATAGTCTAATACTACGATCCTTGTTGAGGTAGATG  
AATGTAACGTGGTAGAAGACGTTGTTACTTGTTGTTGCGCCACGGACTATCCGAATGCGG  
ATGAAGAAATTGTTGATGCATCGGCCTAGGAAGGCCCGTAATTCGGAAGAAGCTGTTT  
ACGCCTTCGTTGTTGAATCGTCCGTTACCGAAGGACCCGATGAAGAACTGCTGACACGT  
CTTGTAATTGTGTTTGTGACGTTACTTCGATTACGGTGACCGTTGTTGAAGAAAAATCGG  
15 GTGAAGCGCTTGATGACACGTGTAATTCTGAAGGTACAGACGTTGACACGTCTTGTAAGTT  
CCGTTGAAGTACGTACCATTATTTGTGATGATCCGGTAGAGTCCGTCGCGGATGAATCGA  
CCGAAACTATTGGCGCAAATGAAGAAATGTAAAGTTGCTACTTCGATTGTATGTGAAT  
ATCGGCCCATTTGAAGATAAACAAGGGGGCATAGACAGCAATATAATTGCAGAATAACC  
CGTTGTTGAGTCGAAATGTTTTGCTGAAGATTCCGCCGA

**GNMOY35TRC** gnm\_826

[illegible]

**GNMPB01TRB** gnm\_827

40 ACACTCTCCTAACACTCCTGGCTGGTACACGTTGCTTGAATTGGGCCCACACCCTAGATG  
GTACCCCGGGGACCACCTGGACCCCGTGCATCTGAAGGTCGGACAATGATGTCGATTTCG  
TTGGACCCGGAAGTGGACCCCGTGTGGACCCGCGTCGTTGTGACGGCACAGATCCTG  
GCCCCGGCGCCGCACGCAACTATTGTATTCTGGTGATACTGTTGTTGTGTCGCATCCCG  
GTACCAATTGGCCCAAGATCATGGCGTCGTTGCTAGACGAACAAGTAATGCCGCCCGTTTCG  
TTGTGTATTGCGTTCCCGTTGTTGTTGCTTAACGCTCGGTGCAAGTGGATCGTGAAATTCCTT  
GTTTCTATGGACCTGTTGTTCCCGTTGTTGTGCGCAATA

45 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 828>:

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**gnm\_828**

GGTGGCGGCCGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGGAATTCCGGCACGAGCCCA  
CAGTGAGTTTCCCCCACACTCGGCTCCTTGGAGCCCCGACAGTCCATAGCACCCCAGGAG  
ATGTCTAACCTTAGGGACTTGGAGGCCTCCCAGGGGTCTAGGCCAGCTGAGTTGTGAAGT  
5 TGCATGGCAGGGACAGGGCAGGGCCGAGGCCAGGGTTGCTGTGATTGTATCCGAAGTAGT  
CCTCGTGAGAAAAGATAATGAGATGACGTGAGCAGCCTGCAGACTTGTGTCTGCCTTCAA  
gAAgCCAsACAGGAAgGCcTGCCTGCCTTGGCTCTGACCTGGCGGCCAGCCAGCCAGCCA  
CAGGTGGGCTTCTTCTCTTTTGTGGTGACAACGCCAAGAAAAGTGCAGAGGCCCCAGGGTC  
AGGTGTAAGTGGGTAGGTGACCGTAAAAACACCAGGTGCTCCCAGGAACCCGGGCAAAGGC  
10 CATCCCCACCTACAGCCAGCATGCCCACTGGCGTGATGGGTGCAGAGGGATGAGGCAGCC  
AGGTGTTCTGCTGTGGTTTGGGAGCCTATAAAGTGAGACTAGGCTGGGCATGGTGGCTCC  
CATCTGCAAAACCAGCACTTTGGGAGGCCAAGGTGGGCGGATCGCCTGAGGTCAGGAGTT  
TGAGACCAGCCTGGCCAACATGGTGAACCCCCATCTCTAAAAATATAAAAAATTAGCTGG  
GCATGGTGGCAGGTGCCTGTAATCCAGCTACTCAGGAGGCTGAGGCACGAGAGTCGCTT  
15 GAACCCGGGAGGTGGAGGTTACAGTAAGCTGAGATCTTCCCACTGCACTCCAGCCTGAGC  
GACAGAGTGAGACTCCATCTCAAAAAAAAAAAAAAAAAAACTCGAGGGGGGGCCCGGTAC  
CCAATTGCGCCTATAGTGAGTCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 829>:

**GNMPE45TF gnm\_829**

TTAATCAAACCTTTAATTCATTATTAAATGCCTGCAAAAATATATAAAAGCGGGTGGGTTT  
TCCCCGACAAATAGTTTTTAATTGGAGCAGCTATATTTTTTTTGGTGCATGCGTAAATCTT  
ATTTCAATTATTTATTTTGAAAAATGTATTAAACAATAATGGAATTGGATATTGAAATAT  
CAGGTTTTTTTTGAATTAGATTATTATGAAGATAATTATAAAGTAAATTGGAAAATAAATA  
25 ATGGAAATTTGATACAAACGACTAATTAAATGGACAAATATAAGTTAGATTGGACACCCA  
AACCTAAAAACTGTCTGAAACTCAATTTGGTTTTTCAGTAAGCGTAGGTTGGCTTAAAAAC  
CCAACCACCAAAATGCCGTCTGAAGCGGTATTAGCTTTCAGACGGCATTTTGATGAATG  
AAACAGGATATTGAGAACTAAGTTCCTTAAAAATCCTACACCTGCTCCTTCCACGGCAGC  
ACCTTGGTCAAAACGGCAGACGCTACAAAGCCATTGCCCGTATCCGAACCGGCGACCGC  
30 GTCTTCGCCAAGGACGAGGCAAGCGGAAAAACGGGATACAAACCCGTTACCGCCCGATTA  
CGGCAATCCGTATCAAGAAACCGTTTACATTGAAATTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 830>:

**GNMPE65TR gnm\_830**

CCCGCCCATCATCGTACTGCCCGAAAGGGACGTACCCGGAACCAGTGCAAACACTTGGGC  
AACGCCGATCATCAAGGCATCAATCGGACGCAATGCATCAACATCGGCAATTTTAGGCTC  
TGCTCGGCTTTGGCGTTTCTCCACCCACAAAAATAAAAAACCGCCCAAAACCAGCATGAC  
TGCAACACTCAAGGGTTAAACAGATACTCTTTGATTGTGTTGCCGAACAACAGCCCCAT  
CACGGCGGCAGGTATATAAAGCAATGGCAAGATTAAGGACGAAGCGGTTGGCTTTCCGGTC  
40 TTTTCCCAAGCCGTGCAACACATTGCTGAAACGTTGCCGGTATTCAAACACTACCGCCAA  
AACTGCACCGAGCTGGATGGCAATTTCAAAAACCTTGTGATTGCTGTGAAAACCAATCAG  
ATTGCCGAGTTTCAAGCTTCATGAAGCGGAGGTCAAACCGATCGACAGGGAGAAGGTGCCG  
GGGCAGGTGCGGGAAAAAGGAAAAAGTTTTGCAGATTGACGGCGAAACCTGCTGAAAAAT  
CCCGAATTGTTGTCCCGCGGATGTATTCCGCAGTGGTCTCAAACAATATTGCCGGTATC  
45 CGCGTTATTTTGGCGATTACCTACAACAGGCGCAGCAGGATAAGATGTTGGCACTTTAT  
GCACAAGGGATTTTGGCGCAAGCAGACGGTAnGGTGAAGGAnCGGATTTCCCATACCGG  
GAATTGATTGCCGCCCAACCCGACGCGCCCGCGTCCGTATGCGTTTGGCGGCAGCATTG  
TTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 831>:

**GNMPE66TF gnm\_831**

5 GCTTCAGACGAGCCATTTATTATATGGAGATTATAGTGGATTGAGGAAGCGCGTTCTTTC  
GCGCGCGAAGACGGCAGGCAGTTTGTTCGATGCCGACAAAATTATCGCCGCCGCCTACGGT  
TTGGCGTTTTCTTTGGAACACGCTTCGGAAACGCAGGAAGGCGGGCGCACGTTCTGTATC  
GCCGATTTGAACATTACCGTGCCGTCTGAAACGCTTGCCGATGCCAAGGCAAACAGCCCC  
CTGTTGTACGGGGAAACTGCTTTGTTCGGATATTGTGCGGCAGAACGCGGCGCAATGTC  
10 GAGTTTAAAGACGGCGTATTGACGGCAGCCGTCCGCTTCCTGCCCGTCAAGGACGGTCAG  
ACGGCATTGTGTCGACAACACGGTTCGGTATGGCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 832>:

**GNMPF05R gnm\_832**

15 ACTATCTTCTAAAGTTCACTTTTCTCCAAAATAGAAAAGGCAGCTTGGATATTTTCAA  
TGGCAGGGAAGGCAAATCTTCAACGAGACTGCCACAAATAGCGACAACAGGAACCTCCGAC  
AAGGGTTCTTTTGTCTACACCAATAGGCGCTTCCCTGCTAACTTTGACGATCTAGTCT  
TCCTTCACCAACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 833>:

20 **GNMPF17F gnm\_833**

TTTTTTTTTTTTTTTTTTTTAAAAATATCATTTATTCTTTTATAAACAATAGCAATAAAT  
TTATTATATGTTAACAGCAGAGTGATGACATCATCACGTATCACATAGCTTCTGGAAAAT  
TCCACCATACACTTTTGAGAGAAGGACAGATAAATGGTCGATAACATCTTAGTATTATCA  
TGGAAAAGTTTGTATCTTATAGACCCCTCAACACCCAAAAGTCGTAATCAGTTCTACTCA  
25 AGTAAGATTTAAATATATATCTATATTTCTGGTCTGAGATTCTTTTCAACTTTACTCAG  
AAAACATATACCTGAAGGGGGAGGGGAGAGTGCACAGATGAGTCTGTTTGTATGTGGAT  
GGTCACAGAAATGACAGAAAATAGTTATTTAATCTGAATCTGGACCCTGCTGAAAACCTGC  
CGTGATTCTCATAACACTCTCCTGCCCTTCAGAAGTGAACTGGCTGATAGT

30 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 834>:

**GNMPG84TR gnm\_834**

CGATTATTCTGACAATCAGCATTTTCAGAAGTATGCCTAAAAGTGGAATCAGACCGGCAA  
GTAATGGCATTTATTACCCCTTGAACGAACCGAAAAACGACAAAAGCCGACATAATGATAA  
AGGCGAGCAGTACGGCAAAGCGGATTTTTTCGGCGTGACGCATAACGGCTCATAGCTTG  
35 CCTGATATTGTCTACCGAAAACATGAAAGGTTTTTCGGCTGCGGACATACGCCGTTAGACG  
GTAAAAAGTTATGTGAAGACCATGTGCTATCGTCTATAACCTGCGGTATGCTTATATCGT  
GAAACATGCCGTCTGAAGGTATGCCCATCTGCTGACAGGCTATGATTTCGGGAAAATAAT  
CGCACAAA

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 835>:

**GNMPH28TRD gnm\_835**

CGACGTTGAGTGCCCCCTTAACTTAAACTCCCCCGTGATAGGGTGCCGAAAAACGTAAC  
GGTGAATGCTTGTTGGAAATCGTTAATATTGTATTGTTTCCTCTGCTTAGCGTGTTTCGT  
5 AAAGTACTTGGTATCGTGCTAGTTAAAGATCGTGTTGTGGCTCGTTGTACCCCTGCGCCT  
GCGTTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 836>:

**GNMPH38TF gnm\_836**

GCGCCCGCCAAACGCGGCAAGCGGCATACCGGCGCCGATGACTTTGCCCATCGTGGTCAG  
10 GTCGGGCGTGATGCCGTGCAAAGATTGCGCGCCGCCGAGCGCGACGCGGAAGCCGGTCAT  
CACTTCGTGCGTAAATCAACACCGCGCCGTATTTTTCGGTCAATCCGCGCAAGGCTTTGAC  
AAAGGCTTCGGTTCGGGCGGACGAAGTTCATATTGCCGAAGAAGGGTTCGACAAATCATTCA  
AGCCATTTTCATTTCCACTGTATAAAGTCCGGTCATTACCTGTGCTTTGCACCTCTTGAA  
15 ACCGGGCAACGGCTCAGTGGCAGGGTTGGCAACCAAAGTAACCGTATCGCCGACTTTTCG  
CTGTCCCAATTCTTTTACGCCGGTATTCAAAAAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 837>:

**GNMPH48TR gnm\_837**

GTCCGATTTGCCGACnAAACCGGGCCTGAAAGTGGACCTAGAGGGAAGAACGCGTTAAGA  
20 GGACAACCTTCGAGCTGTTAAAGACACCTGCCTAGGGGGTAAATGAGTGGTGAAACCGGTA  
TGGGGTGTTAAAGACAAAACCTACTGGCCAGAGGGGTAAAGCCTACCCAACCTAAAGTG  
GTAATCACATGCTTATAAAGACTCATAATACCAATGTTTCATACCCCGGTGGGGGCTGATA  
TTAAGACCTCTGGGTTTGCTGAAATGGGCATCAGTGACGTGGTTGGTATTAATCAGAATT  
AACGTAATAGTGCATATGGGTGGAGTAAACGTAAGTAACGTTACCTACCCCGTAAGGTTA  
25 CAGATCAGATGGCTTGCACTAAACCTCTATAAATTTACTCAGCTTGTATTACTGTTG  
CTGTTGGGAACGGGAAGCGGCTACCCACATGGGGGTAGAAAAGTGGCGAGGCTTGCA  
GTGATCCTTGTAATAGACGACAAGTTAATTTGGGGGCTGGCTTAAATCGAGACCGTCTA  
TTGGCCGCGTTATAGAACCCATGTATAATAGTGCTGAAAAGATCAAGCGCAATAGTGGTA  
CCAAGGGTAGACTCAGGGGTGCGGCAAATACAACGACCGGGACGAACAGGCATTCTAA  
30 ATCCCGAACTAGGGnTAGTTGTAGTAGAAAAGGCAGAATTGAAATTACTACTAAGTTTT  
AGATTGnTAGTAGGATGCCTTCGATTChTAATCTTAAGAGACAGnGTGGGAAGGGTGGCA  
T

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 838>:

**GNMPI02TR gnm\_838**

AAGAAAACAAACCTCGCCCCCCTTCTACGCCCCAGGGAGCGACCATAAAACGAACTGT  
CGACGCGACCACTGGACGTGCGCTAAGTGATTGAAAACAGAATCCCCCTAGGTCGT  
TCCCGCAGCCAAATGGCAGAAACCCAGATAAACTTTGACCGTGATCCCCAATATACTCCC  
TCCACCGTGGACAGAACATCAAGCAACGACAAAGACGTCACCGCCACCCCAAGGATGCCA  
40 GACCGACCACGAACAATTTATAGCAAGAGAATTTACCATACCACGAATGTTGTATAATCT  
GATTACATTGTTAAAGCCCCGGTCGAAACGTCGATCCCTAAATAGTTCGTTGACGTTGCT  
TCTCTTGTTACCCCGTGTGAATATAAAAAGTCTGGTAGCTAAGACTGTTATGCAAACGT  
TGCAATTGTTCCCGTTGTGTCGTGTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 839>:

**GNMPI04TR gnm\_839**

5 TTGCACCGGGTAAACACATTCTTGACACCACGCTCGAAAATGGACACCTTACAGAGTAAA  
GTGGCCCCGGAATATCGTTAACACGTTGATGATGGTAGTGGCCCTGCGCGTAAAGCCTTTG  
AAGGATGTCACCCTGTACGGGTGATAATTGTGATAATAGCGTTGACCTGTGTCATCGGG  
GACCCGCGGACGATAAGTCGGCCGCTGGTAAGGTAACGCCTACCCCGACGAATCCTGGTG  
ACCCCTGGTAGGCTTGGCATGGTAACCTTGCCAGGTTAGGAAGTTAAGAACGTTGCTCGAAA  
10 ACAGCCCTAGATGGTACCCGTCACCTTCTATCCCCATAGGTGAGCTCAATGCCGCTGGAC  
CCCTTCATTCACTAGCTTAACACATGTAGGCCCGTATGGTGAATCGTTAACACCGTTTC  
GACGAACTAACCGGAAGATCGTTGCCCTAGTGAATTGAGGCAAACCGTTGAAAGTGCTA  
GTGTTATTTTCGTTTATCGTATGTTCCCTAACTGGCCCGTTTAAATTTGAAACAACCTGACGA  
ATA

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 840>:

**GNMPI06TR gnm\_840**

TTTGCGGGTCCCCTCCCCTAAGTAGTCTGCTGTGGGGTGTGACGCCGATGACACCTTT  
CCGTCGGTGTA CACTGAGGCCGTGTGTTTCGTACAATTAACTTAAAGTTCGACTTTAAGG  
20 TATACTTCCGAGGGAGAGGGCTACCCCGTTGCCGATGGAGCTGTGCGTAATAACGCCTAC  
CTTGGACCTCCCCGTTAAACTCGTAGGACGGCGTGGACCCTGATACTCCGGAAGCTAAG  
GGAGACCCCTTGGTTCGCGAAGGCCCGGGTGTACCGCTATGTTGTTTCGATCTGAGGCC  
CCGCCCCCTGGTAGGATCCGGAAGGCAAAGCACTTGGGTGTGGTGGACCCGCCGATGAG  
CCTTTAGCCGTTGGTTCGCGCGACAACCTAGTCGGGCGCTGTCACCGAGGTGCCCTAGTGC  
AATTCCCCGAATTGGCGCCCCAAAGCTCGTTATACTTAAATCGTGCCGGAGTGCGGCTGG  
25 TAAGGCACGGCCCCCTAGTGCAATGACGACGCGGTTGCGTCGCCGGTCGACGCAGGGTCG  
TTTGGTAAAGTTAACGTAGTTAACCTGACAACGTTGGTACCCCGTTGCTCCCGTGGAA  
AC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 841>:

30 **GNMPI11TR gnm\_841**

GTTCCCCCTAACACAATCCCGACAAGAAGGCACGGTAACGATGTCGACAACGTTGAGCAC  
TGTGATGATCACTACTACTTA CTAACGCAAATTTCCCCCGCCTTACCCACCATCTAC  
TACCACCGTCCATACAAGACCGAAGGATGATTATGGCACCGGTACCTCCATTTAAGTTC  
CGGTAGCAATTTGACAAAATACCCCTCTTGCCCTCTATGTTTAAACACCTGACAACACAAT  
35 GCGGTACCCCGTCGATGTCCTCTGCGTTCCCTCCACACCTTACTTTCCCTCCGCTAACGT  
ATAGGCTGGCAGAACCCGTAGGGTAAGAATGTCCTATTGTTCTAATGGCGGGTCCGTTCC  
GTATTATGACACCGCTAAAAGTTCTCCTACCACTACCACCCGCTTGATACCTATCGTGG  
TATATAGATTCCCTTTATAGCCCTGTCAAACGCAATTCCATCGCTTGCACTACACCTTA  
AACTTAAAATTCGAAGCCTGTTCTTTGTAAAGTTGTTCTGGTTAAAGATAAAGTTAACC  
40 CTTGCTCGACCTGCCGCTATCGACTTGTCGCTCTGGCACCGCAAGATCGTGTGGTAGCCA  
T

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 842>:

**GNMPI15TR gnm\_842**

GGGCCTAAGGTGCGACCCCTCTGGATGACCCGATCACGGAGGGTGTGCGTGGGGTAGGTG  
GTACTAAAGAATGTGTTTGTACCCTTCCCGAGGTAGGCCGTGATACTGCTTCTGCTCGTA  
ATTGCTTTGATTCCGCGGACGAATCGTGTGAAGACCCTTGACCTTCGATAACTTTATCC  
5 CGGTGTAATGCCGGTAACACACGGTTAATATGTCTGGTAGCGTTGTTGTGTAAGTTGCGA  
CGTAGATGGTGGACCCCTTAAGTGGTGAAGTTCCCGCCGTGGTTCCGTTCTGTTGTAGG  
ATATGGTGGGTGGTGCAGAAAGCTGGTGAAGTTCCCCAATTGGTCGTGCCCTAATAACTC  
GTTGACCCCTACTAATTGCCCGCTAGGGAAAGGTAACGACCCCCCTGGCTAGGCAGAAAGC  
10 CACTCCACCGAACCATCCAAAGACAACGACGACCACTAATATCGCACCTAAATATAATGC  
CCCAAACCTGTTTGTATATGTGGTAAAAAGGTAAAATGGCACAGGTATGTTGTATCCCCCG  
TGTCACAACTATGTTCATCCAACCTGGAACGCAGTGAATTTGGCAGTGTATCCTGCCT  
GGGATGAAAGGGGTGGAGGCCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 843>:

**GNMPI18TR gnm\_843**

TTCCGCCTCCTTATGTCCCTTATCCTTAACTTGACATTGTTGCGTTAAGTATGGGACTT  
TAGCCTATTAAGTGCCTGCGGCAAACTAAGTTCCGTCTACATAGGTGTCTGAATATC  
CTGGCCATGGCCCTGGTGTGTATGCTGCTTACTGCGAAACATCTGTCTGCTTAGCTGGTA  
GAGTAGTTTATGTGGTGTACCCGCGGGCAACTGCGTTGCTGGAAATCCTCCCTTACCTT  
20 TATATCCCTCTTAAAAACCCCTGTGATTTAAGCTACGGTGGGATATGCCCGTGTAGTA  
AGTCGATGTCTAATTATAACTCGTGCGGTCACGTTTGTGCGGCTCGCGTTGGGAACCTTAG  
GTGGCGCCGTAGTTCCTACGTGGCAGCAGTGGGCTAGATTGCTTACAACGGCCCGGCCG  
AAGGTACGATTTACGCGTAGTGCGTTGGCCAT

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 844>:

**GNMPI22TR gnm\_844**

TAGCCGATAAATGGTTCGCGCCCGCCTGTTACAAGTTGTAACACTAAGCCACAGTGGACC  
AAACCCAACTAGGATAAGGTAATGAAGTTGTAGATAGCATAAACAGCATGGTAAGGTGA  
GACAATGTTGCATCGGCCCAAACCCAACTTATCACATAGACAAATAACGTTGCTCGAATG  
30 TAACGCGCCTAGATGGTACCCATCCACTTATAGGCCCGCCTAAGTTCCAGACCCCGTTG  
TGAAGCACCTTAAAGCGTGGATGAGCCGGTAGGCGCAGGATACCCCTGCCGCTGCATTAGG  
TAATGGCCCTATTAAACGCCCCGTTGTTTATGGCTACTATGTGGGCCCGGGCTGTACTGA  
AGAGTGAGTTGCACCTGACGTTGATAATGCTGGAAGAAATGACCCGACTCCTGCCGCAGT  
TGCAAGACCTGTCCGTGGTGGTCCCTACTGTGGTGCCGACCCTCCTCCCGGCCATAGGGT  
35 GCCTGAGGACGGAAATTAACCTGGCTAGTGAGTTGTGCGTAATAGGGATGTGCCGGGTGG  
AGTTGCTGAGCCCGTTGCCTAACCTGGGACAATTAGATTGACGGTTCGGTGGTATTGG  
CGTCGCCGGTATGACGCCGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 845>:

**GNMPI23TR gnm\_845**

AAAATTTGCGTGCCATTTAATCCAACGTTCGGTAGTATACTTTTCCCTGTTAAGTCGG  
TGGCAACAGTGAAAGAGGTTTGTATTGACTGTTTCCTTTAATAGCCGTGTAGTTCCAACG  
GTGAACGGTGTTCGACGTGGCACCCTCTTCCATGTACTCGCGTGGCACCCCTATATTGTA  
CACGGCGTATCTCTAGCATAACTCGTCTCGACGTTGTACAGCCAAGTTAGTTTTCAATTT  
45 GTTAATATTTGCCGATGTGTTTCGATGGGTCCGCTCGTCTTTGGTACTTGTCCATAGATA

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AGTCGCGATTGCTCTTGGGAGTCGTACGCGCTAGAGGCCCTATTGCTACTATTGAAATG  
TGTGAGCATGAAAGGGTTCTGCGACATGTTACCCCCACAGGCCAACGCTACGACAACAA  
CGGCCCTCCAGATGCTAGGCGGTATCCCC

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 846>:

**GNMPI27TR gnm\_846**

TTCGTCAAACCAAAGnACAACACTACAGACACGGCAGGGCAACCAGAGAAATATTCCACACC  
GACGCAGCCGTACTCGACGCCAAAAACAACTTACAAGACCAAGTCCGGCCCCGCGGCACC  
TACCTACACGTCTTACGCGTTAACCCCAAAAACCCGTAAAAAAATTTCGCCAAAACCCAC  
10 CCCCACAACATAATTCTAAGGAGACCCACAGACAACGCAACACCCGAAACCAACGACGGA  
AATAAAAGCCCGCATCCGCCAGACAAGCACAAAATACCCCTCCACCGAAAAATAGCGCC  
CGCACTGCACCAACCACCCACACCCAAAAACCAACCCGTCCCCACACAGGATCCATCCT  
AACGAGCCGGAACAGCCCCGGCAACCCACGAGTGTATGTCTACTTGTGCCAGTAGAACCC  
CGGAAACACGGCCGTCAACCCAGCCCTCGTAAAAAACGAGAAAGACACTCTGAAATGCAA  
15 CGAACACCATAAATAAGTCGCCACAGCGTACCACCAGTACCCGGCAACCCGGTCAGCAA  
CACCGTATTAGGCAGCATGCTACTGTACACCGCAAATGGAATAAACGTTCTCGCGACCGT  
AAGTTGCTCTCTCGGAAACACACTCCTAGTCACCTAGGAGTACAAAGACGGCAAAGCCAA  
CACTAATTGCCCTAAAACACCCCAATGGACCCACACCTA

- 20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 847>:

**GNMPI28TR gnm\_847**

AAATATAATCCGTTTAAACTGAAGAGGCCCGGTCCGTCCGTTAAGAAGAACCAGGAATAGA  
CCGAAATCGAAACTGAGAAATAGCCCGTTGAGTGACAAAGAAGTGTGGGTAGGGCGTCCA  
CTCCCGTTTCGTTAACAATGGCACAACCTGGGTGCCACTATTGGTCCCCATTGGCACAAT  
25 ACTAGATCCCCCGTTGATCCGGGCTCTTCGCTTCCCTTGGTGTGGTGGTGAAGTTCAT  
GCACATTACCGTAATCTAAACGGTAAAAGTGCACACATACTAGTTTTAGTAGGACCGCGT  
CTTGACGTGGACCCATTCAAACTAGTAGTTACTAGGGAGGTGGACATTGTTTCGAAAACC  
AAAAATCTAGCCAAGAAGTTAAACATATACAGAAAGCAAAAAGAAAAATAAAAAATTC  
GTTGGGCAAAAAGAAATAAGTAGGTCGTTAAAGTTTGAAGAAACTAAAAGTAATTAAT  
30 TGAAAGAAAAGTTTGCAAAATGTTAAGAAAGTACCATAAAAAACATTAAAAAACTAAAC  
GACCACTTGAAAACCTAAGTATACCACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 848>:

**GNMPI29TR gnm\_848**

CCACGGCCCTCAACCTTAGCGACACCACTAATCCACCTAGACGGGCACCCTAAAACTAA  
TCCGTGCGACTCGCTACACCAATTCCCTACCGCCCCCACATACACGGGCATCCCCCTCCCA  
CCCAACCTACTCGAAAGAGCTGGCAGCCCCCGGCACCCGGCAACTTTAATTACAACGCCC  
ACCGGATCGCTCGAACGGCCCACTCACAACTCAGTGCCTACAGCCAGGCGGAAAACGCA  
ATCTTATGCCTTAACCGAAGAAAAAGACCGCTCGAAAATCAAACCAACCCCTAGACGATT  
40 CCAGACCTGGACCCCTAAGCGTAATATCAGCGCACCAGCGGCCGGAATAGACCTAAGAACA  
AAATATCCGGTGCCCTGCAGTTAAGCGCCCCCTCCGGCTGGCGGCCTAATCTACTCCGAA  
TTTCGTGCACTCTTGTACTATCGACGCCATGGAACTGGCCCCCGGGGAAGCACCGTT  
GGACGAGCTTGCCGGCGCCTCTACCTAGTTCCCTCTTTAAGAACGGCCAGGGTGATAAA  
AACAAGCTCTTGTCCTTAACGTCCCGGCCACCCCGGCGCGCCGCGCAGAATCTCCCGTTGC  
45 CACTTACGGCAACGGCGCGTATTTCGCTCCACGCGTTCCTCAACG



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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 849>:

**GNMPI31TR gnm\_849**

5 CCGTGGnCCCCACGGTACCCACCGAAGGTGCGCCTGACCCGAGCGAAAAACGCGCCCAG  
CCCCACCCTAGTTCCCGTTTCGACCCTACTAGAAATGGCAACCCATTTGGGTAGCACAGTT  
GTGTGGACCATTTGGTACAGAGCTTGAATGTTAACACCCCGACCGAGTAGACCGGTCGT  
GGTAAAGGCAATGCCAATACCCACCGCCTTAGTTAAGTACGGTACTAATCTGGGTAAA  
GTTTCGGAAGTGCAGCTATCCTCCCACCCCTCCGAGCCGCAATTGCAGTGCCCGTTTCGCATT  
GGCCATGTTGACCCTGTTGCAGAGGCCCTGGCTGGGGCACAATGGAAAAATAGGCCGTT  
10 GGCAATGCCGTGGCACCACCTAAACGGACGTTTATCTGGCTGGGACCCCTCCCGCTCCT  
AATGATCCCTGTTTCGTACTATGTTAATGAATTGTGTAGACAGAGCCCCCGGGACGAC  
CCGTTTGACGGTGGATAACCTTATGTTGTGTGACTGGCGCCCGTTGTCAATTGTACAAAC  
ACAAGGGCCGCCCCCGGACTGGGTGGCAGTGGACACCGAAGTGCCTGACCCGGCAGGT  
AG  
15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 850>:

**GNMPI32TR gnm\_850**

20 TTGCCTTTGTGTGCGTGTGCCTGTTTGCTTGTGTTTGTATCTGTTGCCCTTTTCGACCTCGTC  
GGGCACCGTTAAAAACGGCGGTGCGTGGGGACGTGCGTGGAATCGGGCGCTGTTTGC  
ACCCGAAAACCTTTGTTTAACTGATGGTCGGGGTGACCGGGTGGTGCATGGTCACAT  
TCCTTAATCTCCCCAGATCCCTTGGACACCTTGACCGGCCACTGGTACGGTGACGTC  
GTCGGGTCCCAGGTCGTTTAAAAACCTCTTGTATTGTCTGCGTCCCAAATACTTGTGT  
ACCCCGGGATAAACGGTATACTAGTTCCCTTATTCGGACATGTGATCATACTCATACTTT  
25 TCCGGGTGGTAGTAAAAAGGTCCCCATGGATATAGTCTAATTCGACGGTGGTAACGGC  
GTCTCTAGGTACTCGGTATGGTCATGGTCGGAATCCTTCTACCCGGGTGTGTCGTATGG  
TATGGTATCGGCGTCGTCTAATATGGGTGATTGTACCCCTGGATGTGATGTGCACGTTG  
CTCGAAACATCCTGTGTCTCTACGGTCTACCATTCCTTACCCTGCTCGTTCCAGTCC  
CGCTGCTCCTAACATTGTAACTTTGATGACGCTAGTGTAGCCCCTAGCGTTTCTCCCGT  
TAACGTTAATGGTCGGAACGTGTT  
30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 851>:

**GNMPI33TR gnm\_851**

35 GTGCAGTTCCTGACACGCATGGTACTACGCCCTAATAATTACTTGGATCCGTGTTGTACTT  
CGATTGACCATGGTCCTGCTGGATACTTGCCTTGTAAGATCCTTTGACCCCTGGTCACG  
CGGAAACGTGCCATGATGAAGAGTAAAAATGTGCGACCCATTAATTCGCCATTACCGAGT  
TGTGTGAGACTATGTTGTGCACTGCTTGCAGGAGAATCATGGCGGTTAACAAACCAAGA  
AATCATATTACTAATCCTGGTTTGTAATATTTCTGTTGTATGGTGCACCGTGCACGACC  
CCGGAGTCCGATGGTGAATAAACTGCTTGCCTGATTGTTGTACACTGGTTCTCCGTATTGA  
40 GGCATTTGAAAAATCGGTGGAAATTAATAATCACTCGTAAGTTTCGTTTCACACGGATTG  
TCCGGATCACGCCCTTACGACGGCTAACGAGTAGGTGCACCGCCCGTAGCAGAAAAATC  
CGCTGGCACTGACGCGTTTACTTGTGTTTAAACATACnTGTGCGACGCCCGTTGAAGCAAT  
GTGTACTTCTAACTATCCGACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 852>:

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**GNMPI34TR gnm\_852**

5 TCCACTCGGATAATACTTGTACTACTTCTATGTGTATTAGTTACTTTGTTAATACTGGTC  
TCGTTGTGTGTGTGACGAAAATAACGGGCTCGTATAAATCGATTACTGCTGTTTTAACT  
CGACGGTAATGTTGACGATGGAATTTGTTTGCGCCCGATTGGAGTACTTCTAACTGC  
10 CCAAACCATTGGAAGAAAGTCTTCTGTCTTGGTGTGGTAGATGCCCTGGAAAACG  
TTATTACCGTTTCCTCCCGGATGAAGTTCCGTTGATATTACTGTTTCGTGTTTCGA  
TTAGTTGATGATGTGAAACCATCGTGTGGCGTAAATTTGTGTGACCCGGCACTTGAAC  
CATCGTAGATTGTAAATTGAGGTGAGAAAGCGGTATCGGCCCTGGTAATGAGATCCCTG  
GTCCGAGTACTGAAGAAGCTTAAGTTCGTAATTGATCGACGATTACTAATGGTAACTTTG  
15 ATCACCCTCTGTCTAATTCTGTTTAAAGTTGCGTAAGCTGCGCGTCATGAAACTCCTAGTT  
AAATTGGCCTGTTTACGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 853>:

**GNMPI35TR gnm\_853**

15 CTGGCCTTTGCCTGTTGCGGTGGGGGTGCCCGATGATGATGTGCCCCCGTCGCCCCGT  
GCGTGGCAGTAGGAGCGTTGTCTACTCCGTGTCTGTTGATGAGTTGGCGGAAGCAGG  
CTACCCCTCCCCCAATGGTGGTATCCCCGTGGTGCCTGGGACATACGGGGCTGAGACAGA  
TGACGCTGGGCCCCGTTCCGCGCCCGGATAAGCGTGGGTACCCGCCTGGTGGTGCCGTTGA  
AACGGAGGCCGACGCGTGTGGTGGCGCCCCGTGCCCTGGGACCGAGGAGGGTGTGGTGA  
20 CGTTGCTCGAAAAGTAGGTAGGTGATGGTGGGACGCCGTCTGAAGGTGGCAATGGTTAGTT  
TGAGTGAGGTGAGGATGAAGTCGCTGTGTTTTAACTTCGTGGCCGTGCCTTAAATGGCGG  
GGCGTGTGGCGCGGCCGATGGTCCCGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 854>:

**GNMPI36TR gnm\_854**

25 CTGGCTTTTCGTAGCGTTAACTTAAAGTTCGCGTGTGAGATTGTTGGCCGTGGTAGAAT  
TGGTACTGTGGGCCCCGTAGGGAACGGGCAACTGCTGAAAACAATTGGTAGGCCGTTGTAA  
GCTCGCCCTACTATGTTGAAATTGAGTACACTGATAATGAGGCCGCTGCAGTTGAAGTCG  
TCGTTGTGCCTGTACAAAAGTAGCCCTTTGCGGTTGGTCTGCGGAACCCCTTATAACG  
30 CCCCCTACCCGAGAGGGGTGAGGAATCGAGGCCCCCGACGCCGATGATGCCGTTAGCC  
CCCGTTACGGTAATTATCAAAGTGGCTCGTTGTGTAAGAAAGGTGGGAAGTCGGACGATA  
CTGTATATCCTGGTGTATGGGCCGGTATCGACGGGCGCTGCGCATGCTGGCAACGATGGGG  
ACGTTGAATCTCGTCCCGATCCCCCTAAAAGTCCCAAGTTCCTCCTTAAGTTCATGTTG  
TGACAAGAACGGACGGAGGAATGGCCCGTTCCGCTGAAAGAGGTCCCAAAGACACAGGGA  
35 ACATTGAGCCCCTGGGCAATCCTGATGCAACGTGTGTAGGCCCGGAGGGCGGAACCTAAG  
TCCCTTAAATGCCGACGTTGTTGAAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 855>:

**GNMPI37TR gnm\_855**

40 TATTTAGATACAATGGCTGTGCCCTACTCCAAGTAGTATTATGGTGTATACAAGTAAAGGT  
CATGTTTCGTTAGTACCCGCGCGGCTGACGTCTGAATAAAGGTTAGAGTGAGCCGACGTTG  
TTTAATGGGCTGGCTATGTTTGCAGAGGAAGCAGTTTTATAACGTTATGCTGAAGAAG  
GCTGTAAGTAGGCCGGTGGGGACGGAGCTGGCGCCGTTGAAAGGCCCGCAGAAGACGTCG  
TTTAAGCTCCGAAGTACAAAATGCGTGTGTGTCATTGGTACTGATGGTGGCTAGGACG  
45 AATAAGGTCCTAAATAATAGGGTGAAGCGACATTAGAATGTTACTACTGTTCTGTTTGA

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ACTAGGTGGTCTACAACGCGTGTTACATTGATCGTGAGGGCGGGTGATTGCTGGTATGG  
GAAAGGACGGCGCCCTGTTGATCCTCCAGTAGCGCGTAATAGGGCCGTGGTACTGATA  
GGGAACCGTAGTCCGGCGGCAACTATCCTGGTGGTGGCACC GGATAC

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 856>:

**GNMPI38TR gnm\_856**

ACTGAACTTAGTTTGTAGGTGATGTGGCAAGTACGGTGTATAGCTCTTCGTACACTTAGT  
GTGCATAGACATGGATGGACCCTCCTAACTGGTAAATCGCGGCAACTGGTAAGTTACTGG  
ACGACCCTCCTTGAAGTATTGATGTAGCAAAGTCTGGCGTGGCCGTAGGCAGAAAGGACC  
10 ATTGTTCTTGCCGTTGTACCGTCCTGGGTAAGACCGTGGATGGTCCCAGGTAGGGTGGTG  
GTGGTAAATGTTAGTCCCCTTTGCACGTCCAAGGCGTGGCCGACGACCGAGCTTGATA  
GTGGCAAGCCGTACGAAAAAACTGGCAAAGACGAACACAGATTGCCACCACAGTTCAATC  
GTCCTTCCAAAATATGGATAAAAAATCGTATTCTTGATTGTAAAAACGTTGCTCGAAGGC  
GTAGCCCTTGCCCGCTTGGTGGCCGTGCTGGGTAGTTGGGTGGCCCAACTTATCCTGTT  
15 TGTGCACCGCCTGGTAGCTAGTAGATCGCTGCAACTGGTAATGCCCGTTGGCCCGAGCCC  
GAAGAATTAGTTCTGATTGCAAGGACTGTGCGCCGTAGCCCTTGGAGTGTCCGGTAAACT  
CCTGCCGATGGTAATGATCCTGTTCTGTAACCTGGCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 857>:

20 **GNMPI39TR gnm\_857**

TCTGGCCTTTGGTGC CGGGTACTACTAACCTGCTGAACTGCGTAACCTGCGGGTGGTGG  
CTGTTACCCGGATGCCGCCCTGATGAGCATCCTGGTGGCGTGGCTGACGAGCCTGGGGG  
TAACTAGTGGTCTGCTATTTGCGATGCCTATAATAACTAAACGTGGTGGTAGTCCTAGTG  
TGATAGAGGTCTGGTAAGGTGTGCTGCGTTGTCCCTGCGTTGGCCCGAAGCTACGATGA  
25 TCCTGACATTGCGTGTTGATAGGTTGCTCGAACACTGGGACGGCTGGCGGTAATGATGA  
TGTGTGTGGTCCCATCCCCGTTGTTGCGCTGGTAATGTGTATGATTACTGGCCCGTTGC  
GGACGCTTGTTAAGGTCCCCTTGGGTAGGTGTGATGAACCTAGTTGTGTTGGAACAA  
TGATGAACCTGGCTACGTCCCAGCCTTCTCCTGTCTAATGTCTGTGTCCTGCCCTTAG  
TACACAGGGAACGTTGCTCCCAACTGGACAGGTAAGTCCTGTTGATGGTCTTATAACCT  
30 TCGCCCGCTTCGACGACACCTTAGTTTCGTTCCCGCAATGGGGTAGATGAGGACGCTCAA  
GAACCCCCCCTTACAGGGCCGTCCCTGGGCCGACGGCCTAACTAACTGGACGTTTCTC  
CTAACACCCTAGATGGTCACTACCCACCCTCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 858>:

35 **GNMPI40TR gnm\_858**

CTAGTCTGCTTCCGCCTACACATCGTATACTGCATTTGATGTGTTTCGCTGAAAAACAA  
GTGCAGGGCCCGCAAGCCGCTCGACGTTGGACACGTGGTAGTCCGTTGCTGCCAACTAAT  
CGGCTGGACATACTTCGTTTGATAGATCCAACTTTGCATACAAAACCTGTGACTGCTCTC  
CCTTGAACGATGAATCTGACCGTGGGTCTGCTTTGACGAAATACCCCACTGATTTGGATG  
40 TCTAAGTTGCACCTCCTTGAAAGTCTTTGCCGTAATCTGCGTACAGTGGGTGACGTAGCT  
CGCCCGAGGAACCCCAAAACACTTCGTCTTCGTGCTCGGTCTACCACTCGTATTAGTTGC  
CTCCCTTATCCGTTGTTGCTTAAACATAICGGCAGGGCCAATTTGGGCTCTAAACAC  
CCTCCACTTGTATCTAAGTTCCCTTATAGGTGAAATATACCACTAGTACTAGTAGGGTA  
AATGGTAGGGAAATAACTAGGGCTACAGATCGTAGGCCGTTGAGCTTGCTTGAGTGTACT  
45 AGTAAAATGGTAATGGTAGATACTAGTATGTTTTATACAATTGnTCGTTATTGCGGTGTG  
TCTAAGTTCCCGCTTTGAGAGGCAACACCGCCTA

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 859>:

**GNMPI41TR gnm\_859**

5 GCTAACGTCCGACCCCTGGCCCTATCTACACCCCCCTTCCCGCTGGCAAGGGACAAGGAC  
GTGGCGTGGGTCAAACTTGTATCCGTTTGTACACACAGCGGACCAATAAAAATTAGCAT  
GGTGCCGTCTGTTCAGTCTAAAGAGAATGACCTCTCAAGGCGTCGAAGTATTAAGCGA  
GCTGGCCTTGCATCACCCGCATCGCTCGTGGTCCTGTTGCTCCGCTTCGACCCCGCCAA  
CTTATCACAAAAACAACAAAGAACTACAAATGAAACCCACCACTATACACCCCGGAAAA  
AACACTACCCGTGCGACGCCCCAAGTAGGCACCCCATCACCTCCCATAGAAGTGGGACC  
10 CCACTAAACGGGCCTGGTAGCTGGTGGATAATTGTCTAAAAACACCCCGTTGGATATT  
AAGGGCCCGCCTACATCGTTGAATTCGTTGGCCCCGTACTTCGACCGGGCGCACTGTTCC  
CCGCTTCCCAACGTTGTTATCCACACCCGTTATCCCTTTGACGAAGTTGCCCGTTGAA  
AACACTTTTTATAGTTCCTGTGGTAATCGTCGTGATGAA

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 860>:

**GNMPI42TR gnm\_860**

CCCATTGCAACGAAGTGCATTAAACCGGCATCCAACCTCGACCCCTTTACTGTCGTTTAC  
AGGACATCTTAAACTAATAATAGGACCCCTTCTCCGTCTTCCCAGAAACAATCGGACAAG  
20 TATTCGAACGCACCTTGCCCTAATAACCTCCGAGGACCAACGCCCCGACCCAAAGCATCTC  
CATTCCTAACGCAGCCCTCAGCTTCGAAACACGCCCTTCCGAGTCTTACTACGAACCC  
CAGCTTTAACAGACCCCGTCCCAAACTAATACCGTGGGCCCCGAAATACCTCTTACTCA  
TAGATCGAGACAACCTCCGAAGTAGCGCCACGTCGCGAGGAGCTCGAGAACTTTTATCAA  
TTGTAGTTCCTTTTGGCCCCGTGTTCCCGCTAGGCCCCCGATCCCGGTAAATGGTAGGA  
TGCCGATTAGGCTCTGATGGCCCTGGTGGTACCGGGGGCCCTTCGTAATTATCGGCTAA  
25 TGGTCCGTGTTTGTGTCGACAAAGGGGCCGAGTGTGTTGGTGGTGTGTTGCGGACAAATC  
TTACGTCGCCGTTTTAATGGCTGAGTCCGGTACCGCGTCTGAATACCCCTCGCCGGTCC  
TACTGGTGTGGCTGGAGAAACCGTCGTTGAGGCCGTCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 861>:

30 **GNMPI43TR gnm\_861**

AAGTAGGATGGACGGCTACATGGTACGGTCCACCTTGCCCTTTAAACCCCTGCGTGGAAC  
GAAATCTCTGGTTCTGCACCGTTAAAGTACCGCGCTTAACCTTCGAAGTCGTTTGAATGA  
AC

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 862>:

**GNMPI44TR gnm\_862**

CCGTGTTTAGCAGCGGGCGAGGCAGAAAGGTCGTTGTGGCCGCTGAGCCTGTTGGTCCCA  
TGCCCGAGTGACCGCTGCCTAATAGTAGCCCCCTGGCGGTCGTAATAAGCGCTGGTG  
40 AGGATCCGGGTCCCGGTACCGTTGGCCCCCGTGTTAAACGCCCTAAATGACCTGGTGAGC  
GTGAGGAACCTGTTTAGTGAGCTTTAGTGTAACGGCCCCCTCCTGAGGAACCGCCGAATA  
CGCCCTGGCGTAGAATTGCTTGTGTTGGCCCTAAATACATTGTTGTTGCCTACTAACGGA  
ATGACAGATAGTACCCCTGTGTCCGCGTTGAGCCTTAAACCGGGAATAAGCTGGCTAGG  
CAGCTGTGTAAGATACCATTTGCCATGGAGACGGCGCTCCTGTTGCCCCCTAGATGATTT

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AAGTCGAATCCGGTGGTCCTCCTAGGAGTGAGGATGTGGACGCTGAGGTTACCGGCACTT  
AGCCTGGTAAGGCAGGTCCCAATTCCGGTGAGTAGGTCTCCGCTGCGTGGATGGCCCCGTG  
CTGAGTTAGAATATGGTAGGTGCGCC

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 863>:

**GNMPI45TR gnm\_863**

TACCCCGCCAACCTTATCACACCCTAAACCTTTCTCTCCCTACTACCACCCAAACGTCCT  
ACCAACACAACCAATAAAACCCTACCCTTACATATTGACGCAGAAGAACAATAAACCAAC  
10 TCACCCACAAATCTTGACCTCCTTCTACTGGGCCACATCTACTAGAAACATCTATCGAAA  
CACACGTTCCCCATACGGAAACTATCAGATAGCCGAAAAGTAAGTAGCTAGCCTTCGCC  
AAAAATGTGCGCAGAACCCCTGTCCCACTCTAACTGGATATGGCCCTAACACGCTCCTTT  
TCCTAAACATTAACTGCTAAATTGCGCTTAGTTGACCAATTCACACTTCGATTGCCGTTG  
GTGTGATCGCTGGCCCTGGTGTGATGCGGTGCCCTTTGCACCCGGCTGGCGAAAATGGCG  
GCGTGTGCACGCGCCCCACCTCGCACTGTGACGTCGGCCACTGGTACTTTGACGACCCC  
15 GCGGAAAACGCTACTGGATGGTGTAAAGGTGCGAATGTGTGCGACGTGCCTGGTGGTTT  
GACGAATGGTAAATTTACCGTTAAAACCCGAAATCGGCTGGTTCGGACGGGTGCTCTGGT  
GTGCCTGGTACTACGGTCCACCATACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 864>:

20 **GNMPI46TR gnm\_864**

CCCCGAAAATTGACCCCTTTCGTAAAGTCGTGCTCGTTGCTGAAATGTGCCGAAGCATG  
GCGTGGTGTAATTGAATGGGGTTTCGCACCTGATAAGTCGGGTAATAGCGTGGTGACCTAG  
GAAACGAATTGCGAGGCAGGGGTGCTGGCGAAACGCGTTCTCTTTGCATCCCCGATGGGT  
25 GAGGTGGGCCTGTTGCCGAAATGGCGGTATGTCACCCCTTACAAAAATGGCATGTTGCGG  
GCTAGTTTGGTAAGGGCTGAACACTCGACTGACACGTTGACGGAATCGCCGTAGAAGGTG  
GAGGGTGGTGCCCCGCACGCTGGTGATACTGTTTAGCATAGTTGTAATACTTAAGTTGGC  
ACCGTTCCACCGCTGGAAAGGTGGAATATTGTTGTGCTAGGGCGGCTGTAAGGTTAGT  
AGGGTGGTAGGCCTAGATGGTACCGTTTCGTGAGGAAAAGTCGGTGGAAATCGTCGCTGGAA  
CTGGCTGCTTGCACCTTGTGTGCTGCACGTAGTACGAAGATACCTTTCCTTCGACATAG  
30 GGGACCGTTTCGTAACGCGGTGGAAGTTAAAAGACCGTGTTTCGTTCTACCTAGCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 865>:

**GNMPI48TR gnm\_865**

CTGGCATTTTGCTGCGGTCCCCGTGGGCCCCACTGGCAACGCCCTAGATGGTTTCGCTTA  
35 GACACCTTGCTAAAAATTGTGTTTACCTGTTGCTCGAAAATGTTATACTGCCTAGTTGTC  
GTAATCGTGTGTGTAGGCCCTTAGTAGTTTCGTCCCGGTGCGCTAAACTTCCGTGGCACC  
TGCAATTTGACCTCGTAAACTGGTGACCAATCTTGTCTTAATTGGCCCTTGACCGGC  
AGTCGTTTGATCGCCTGACCCCCCTACACCGGCTGAGTATGACGAAACCTGGTGCCCTAG  
TGACGGGCCCCGCCCTGAGGCCTACGGTCCACTCTCCGCGCTACTACTCCGAAAAAAACC  
40 ACAGCCACTTAGTAAGCGCCGTAAAAGTAACCCGATAGCCCTCCGCGCTCCGCGCGCGCGG  
TCTGGTAAACGTTCTACCAGACAACGCAGAACGATCCGCAAAGCCAACAACATGCCGAAA  
ACAGCCCTGCTCGTCTGCTGGGTAAAACACTAGATTCCTCGTCCACAGTTCAAAAAACC  
AGTCGCCCCCTACATAGGCCCTTAGTAATACAAAACGAAATTGCCTCATTTCGTCGACC  
TCTGACAGTCCCCCTAACAATCTTCCCCAAGCGAAGGCGACACGAAAAATCCCCACCGGA  
45 ACTATTCGCCCCCTAAGAACACTAA

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 866>:

**GNMPI49TR gnm\_866**

5 GGGTCCCCGCCTCCACGATAATCGTTACTCGCTGGGTCTTGAGCTGCTTCCGATGCTTG  
AAGAGCCGTACCATGGCGCCGCTAGAACGCCAGAAATGGGAGATTCCAGCTTCGTGCAA  
CTCGGGGTACATCCTAGACAAGTAAGGGAAAATTCATAGTAGTCTGCTAGACATCTGCAG  
AATCCTAAGTACCTGCGTCCGATCCGTCAATATCTTCTTCGCGTTCCCTACTACTGGCTG  
CTGCGTGGGCAGCTTGCTTCTCTCTGGCACTTACTGGGTAAAACCGTCTTCTAGATCTG  
10 CATAATCCGTACTATTAAATTCAGGAATATCCGAGTCAATTACTTGCGAGTCAAGCTTAC  
TTACTTCCATGGTTCGATCCTCCGTAGCGATATGCTTATCTAAATTCTTCTCGTCAGGCT  
ATTGGTTTACTGGGGCTTCCCCTGCAGGCTTCTCTCAGGGGCGGGGCTTCAATCTTGG  
CTTCTGCAAAGATCTCTAAAGAGTCCTAATTTATATTAAATTTAGTATCCTCACTACTCC  
TACCCTAGTAGTCCCAGCTCCCTCTAACCAGATCACTCTCAATTAAATCTAGCATTAC

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 867>:

**GNMPI50TR gnm\_867**

TCCTTAATGCGTTCTTCGAGTTACTAGAAGTGTCCCAAATTCCTAAGAATCCTAAACCGA  
CTCGAGTTGCAGGCAAATTTCTTTATATGGGCTTCTACTTCACAGATAGGCTTCTTCAGC  
20 TTCTTAAGATCCCTCTCTTCTGTAGTTTGCTTCAGTTCTTCATGATCCTCACTCGCTTCA  
AACGTTTGGGCGCTCAAGTGGTCTATCCCTGGGCAAATAGCCCCAAATCTAAGCTTC  
GTGCAACTAGTGCCTCCTCTGTGTCTTGCAACAGCAAAATCCCAAATAGGCTTTTGT  
TAAGTCGGAAAAGAACCTGTCAAATAAATTCAGGTGATTCTTCCAAATTCAGGAGCAA  
AAATAAAATTAACGTGCCATTGTTTTATTTCTTGGGGTTATGCCTGCTGGCTTCTCGA  
TTGCTTTGGGAGCGCCGAGACTCTCAAATTCCTCCTCAGAGCTGCTAAGCCTATATCTC  
25 TCGTCCCTGCGGTCTTGGGGTTGCTGTGAGGGTCTTGTGCTGCCCTAGGGCCCCCTAC  
TCAGATTCTTCGGGGGCTTCGGGTCTTAACCTGCCCTACCTAGATCT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 868>:

**GNMPI51TR gnm\_868**

30 TCGGCTTAAATATCTTCTTGGTTCGCGGTCTCCTCGGTTTAGGGGTGATATTTGGCCCT  
CCATGGTTTCTGGCATCCTAATTCTAAACTCCTTGCTGGCGGTTTGTATGCGTTCTTCC  
GGTCCATCCTCGGGTTTGGGTTCGGTTTGAGGAGGGTAATTGGCTTTTTAAGTGTCAGCT  
TATCGGTCTCTTTACTCGCAGTCCTCAATCTCCTCTCCGTGGGCATCCCTACCGATCTGA  
TTGCTCCTTCCAGGAGCTTCCTTACGTTTCATTGCATTGCCTGCTTCTATCATAACAAAAC  
35 TCCTACCAAGAATTCTGAGTACCTCAAAGCCTACTAGTCCATCATAGGGTTCATATCTG  
GTACCTCCCGCGTCAGGGTAATTAACGTGTTCACTACTCCTGATGATTCTCATGGGGATCC  
TAATAAACAAAGTCTTCCCTAATCGTAATTGTAATTCTTCGCGAGCCTGCCAGGAGCCTCC  
TACCCTCCTCCCTCCTACTTGCAAGCTTCCTTGGGTCCGGTGCAAAGATTACATCTGCCT  
AAATTAAACTCCTGATAAACATAAATTCGAGCTTTGTAGCTTCTTGGGTCCGTCACGC  
40 CTCGAAAATATTCTACCTCTAAAGTCTCGCGTTCTATAAGGGATTTCAAGTACTTA  
TCATAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 869>:

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**GNMPI52TR gnm\_869**

5 TGGAACTCGTCCATAGGGTTCCTCCTCCTGCGCTTCGTGCAAATCTTTCCTCCCCCAGCT  
CCTGCTCGGGGTTAGTCAGAACTAGAGGGGTTCCATCTCGGTCCCCTCCCGGGGTTTCCC  
TCCTTCTTCAGGGCGGGCTCTGGAGAGACGCCAGGAATAAAAAGTACCATAACCTCATCA  
AGTCGGTGTGGGCACTGAACCTCACCTAATCTTCGATGCCGGGGCGGAAGTTATGAGAA  
AAAATATGCTACTAAAGTCGGGAAAAATAACTCGTTGGGGGTCCGTCCCTCCAAGATCCT  
ACCCGTCCGGGTTACTACCTTGGGGGCTTGGCTTCGGGTGAGGGCTCTTAGCAGGGGCT  
10 ATGTCCGATCTTTCGCTCTGTTGCTAATAGTCTCCTCCCGATCTTCGTCCGTACCTCTAC  
CCTCGGTAGTAGCAAGGTCAATCCTAAAGTGGTCTACTCATCCGGGGCTCGGTATCCT  
GGTATGTCCGGCCTGGGCTAGGAACCTCACCGACGTCCGGCCCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 870>:

**GNMPI53TR gnm\_870**

15 GCCCTCAAACCTATCCGAAAAACAAGTCTTGAGGGCCCTACTGGTCTTAGGGATTAGAGTA  
ACTGTCCTAATCCCTCTCGTCGTAAACTTAACGTTTCTTTTGGATGCCGAGCGCTCTA  
ATAGGATATTCTTCATGGCCCATCAAATTCGTGAGAGTACTGCCTTCCAAAATTAATTCA  
TGTTCCGGCGGTTCCGGCAGGGAACCCCAAGCTAAGCAATTGGAAGAAATGCAAAAATAAAT  
GCGGTTCTTCGATCCCTACTCGCTCCGCAGGCTTCGATTTCGAGAGGGCCTGGGGCCGCT  
20 GCTGGTGCAGGTTCCGCTTAGTCGCTGCAAAAGTACTGGGCTTCAATAACAAAGTCTTA  
GTTTCTTCGGGATGTTGGGAATCATCAGTCAGCACCAGGGCCCGTCGTGCAAGAGGCTGC  
GTACTGATTAAAAGGAGCTACATAGTGGTTAAAAGGGGGCCACGATCTGTAAGCTCGGTC  
CTCATCCGCAAAATACTAAGAGTGAGTGCAGCATGGAGGCCGTGGTAAGGAACATGCTCT  
GCATGATCATCCGAAGGGCGTGCTGCCGTCCGGAGTTCATT

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 871>:

**GNMPI54TR gnm\_871**

TAAACTTGCCAAATACTTTCTCTCTTTTCAGCCGGCTTAGTCGGCTTCCTACTAAACGCGT  
TATTAAGTGCATTAGTTGTCAAGTCTGCCTCCATAAACGTCATTAATGTAGTCGTCTCTCC  
30 TCCGAGTCTAAATATTGGTTGCGGCCTCCAACTAACTTAGTCCTAAAGTGGGCCTCCA  
ATATCAGGGCCGCCAACAGTTAAAAAAGGAGCCTCAAAGCCTCCTAAAACCGTGCGCT  
TCTGCTTCATTACGCGTCGTGCGCTTAACTTGGGCTTCTTCAGCTCCAAGTGCAGCGCA  
AACATAGGCTTCTTCAGCTCCAAGTGCAGCGCAACATAGGCTTCATCGGCTTCAACATC  
ACAGCAGGGGCCATAGTCCGTTCAAAGTTCTGCTTCTCTGGCTTCAGGGCTGGAAACTTC  
35 TTCCGATCCGTCCGGCCAATCCCTTCCGTCCTCGCGGTACGGGCATTAAGGTCTACCTC  
CGATCAAACCTTGGCTTCAACTTAGGCTTTAACTAACTCGGTGTCAGGCTCCCTCCTC  
CTCATATCTGCCTCCTCAGGCTTAAAGTCCCTCGGATTCAATAAAGTCTGATAGTGGA  
TTCCTCCTCCTCTCGGTTGGCACGGTGG

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 872>:

**GNMPI56TR gnm\_872**

45 TCCGGTCGTTATAAAGAAAACCTCCGGGTAGCCTCACGATCTCCCTCAGGGTCATCTCTTC  
TTCGGTCTTCTCCATACTCATCCTCTCCCTGCTCCTCGAACGCGTTCAGAGGCACCGT  
CCTCACTACGGGGGTGAGGGTTTGCGTCAGGGCAGGGGGAGTGGGCCGGTGCAGGGTTAA  
CAGCCTCTCCAGCGGGGCGGTATCCGTAGGGGCTCCAAGAGTCACTGGTTGCTCCTAC

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CGACTTCATATTCACCTCCCTCTCGGTGCGAGCCCTACCGCCTCTAAGGTGGCGTTTCGT  
 GACCCGGATCTGCTTGCTCGTCCCTCCTCAGCACGTTTCATAAGTAGCGACAACGCGCCG  
 GGGATTTCATTCGCCCCCTTCACTACGTTTACGATGGTCTTCTGGGTGAGGGTCACCCA  
 CAACTGGGGAATCATGGCCTCGGGGGGCAAATGGGGGGCTACCGGGGCAATAATAACCTC  
 5 CTGCATCGGGCTATGTAGAAAGAGTGTGGTAAGAGTGGTCCGTCCTAGAGCTTCGTTCAA  
 TTCCCGGGAGAGGTACATCCTAGGGGGCCAGGAGGTCCAGGGGGCTCGATGTCAACCTG  
 CCAGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 873>:

10 **GNMPI58TR gnm\_873**

AGGCCTCTCnAAnAAAnAAAGTTGTCTGGGTCCTTCTACTAGTAATTACTTGCTTTTCTGT  
 CATAGTTCTCGTAATATGGGCAAACCTAAATCTCAGAAACGCTGCTTCTGCGGCTAACTT  
 CAAACGCTTCAGCTACACCTAATCTTGGAGGTCTTGGCCCCCTAGTTCTTGCAAAAAATAAA  
 AGTCTCTGGAATAAATATCAATGCGGGGGACATCCTATATGCCAACGTTAACATCAACCT  
 15 ACTTACTGCTGGCTTGGAGGCCGCCCTCTAAAATCACCTCAAAGTAGGCGTCAGGGTGCG  
 CTTCCGCTTCCCTCCGAAAATTGGCCTGCGTCCGCTCTAAAGCCTCAATAAACCTACAAGT  
 GATCTTGGTCAGAGTCTTCAAAAATCTTGGCTTAATTGTAAATTCTCGAGCATTTCTCTT  
 CCATGCATTAAGAGTTATTTTCAATCTAGTCTACTCAATATCAGCTTTCGAGTCTTTCA  
 TGCCTACCTAACTTCATTGCGCGGGCCGCCATCTCTTTGCTGTTCCGGGCCCTATGGGA  
 20 TCTTCTAAGTTTCATTGTAAAGATTCTTAAGTTCnTCAAATTCGTCTTAATTGGGGCCAA  
 TACTAATATACTAGTTGTCAGCTTC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 874>:

**GNMPI59TR gnm\_874**

ATTATTCTCCTTCGATGCTTGAGTTTTGCTGCGTTAGCGGTAAACTTCGTTGCTGTCCAT  
 AAGCCTATACTTGTGTTTCAGTTTCAATGTCAATATACTTGTAGGATTCTAGTCAGGGTA  
 ATTGCGGGGCTTCGGGGCATCAATGCACTAGTTTTTCAAGATACTATTTGGAGCTTCTGATT  
 CTAATTCCTGCCCTCAACATAAGATTTGCGTGCAATGCGGCCAATGCAGGAATTCTTAAT  
 GCATTCAAAAACCGGGAAAAAGACAAACTAGGTCTGCTTCGTCGGCATCTTATTAGGA  
 30 GGTACATTCGTCTACTAAATACTCGTACCTTAGACAACGGCATCAACAACCATAAAGTA  
 CTCGGTAAATTATATTACGAACCATACTCAGCTTTCGGCCAGAAACAAAATCCnTGTG  
 ATAAATGTCGGGATAAATAATAGATTTCGATTTCAGCTACAACTGAGAGTCACAAATGCT  
 ATAGGATTTTTC

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 875>:

**GNMPI60TR gnm\_875**

CTCCTCCTAACTTCTAAAAGTTTTTCACTTCTTGTAACTTCCTCATTGTCGAGGTGGT  
 AATATTCCTCCTCTATATTCTGATGTATATCGTCCATGTGATAGTCCTAATCCTCAAGGT  
 AGTTAGCTTTTTTACTACTCCTAAAATTAGTAAAATTCAAAAATGTGTTATATTCGGGGAT  
 40 CTTAAAAATGATTGTCTCTATAGATGGGGGGGATACAAGCACTTCTTTCTTCTTCTC  
 TTCCAAGTCTCCTAAAAGCTTCTTGGAGGTTCTGCGGGTCCGTAATCAGCACAAATATCGT  
 CAAAGAACGTCCCAACCGGGGCGCCCGCTAGGGTCCAGTCGGCAGCATCATCCCGATCTT  
 TAATACTCAAATTACTCACAAATATAGTCTTAGCTCCGCGTCTGTCGATCGCGTCAGCAT  
 CCTCGTCCCGGCTACTCGGGTCCCTCCCCGAGCGCAAGGCTGGTCTGGTGGTCATCAT  
 45 GGGGCTTTTCACGGGCTCTAATGTGCGGGCTTAGGCTCCTCAGCTCCGTCGGGTGGGCAT  
 CTCTTATCAATTACGCGGCTTACTCGCTTACGGGCTTT



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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 876>:

**GNMPI61TR gnm\_876**

5 AAATTCTGTTCTTCGTAGGTTTCTCTACCTCCCAAGTGACATAGGTAAGCTGAACCTAAG  
GGAGTCCCAAGCATGCAAATGTAAAAATGACAGGTTTATGGGTCGCCAAGCATCCAAG  
CGACCGGTCGCCAAGCATCCCAGCTACCGGGTTCGAGCCAGCCAGGTCGTAGGTTTCAC  
TACATCCCAGTGACATAGGTAAGCTGAACCTAAGGGAGTCCCAAGCATGCAAATGTAAAA  
AATGACAGGTTTATGGGTCGCCAAGCATCCCAGAGACCGGGTTAGCTCCATCTCGGTCC  
10 AGGTATCATGCTCTCCAAAGCATCCCAGGGGCCGCGAGTTTGAAAAAAGAAAAAATA  
GGGCTAATGGGCGGAAAAAGAAACCTGCGCGGGGAATCAGCGCGGCAGAGGGAAGGTGAC  
AAACCGACTGAGGGAAGACGGATTGGGGTGGAGGGAAAAAGACTGGGTGTAAAGGTAGC  
AATCTTGTAAGATCAGAGCTACAGCTGTGAGTCAAAGGAACGGGTAATAGGGGCGGGAGG  
AAATAGGGGAGGGGACTTAGGGGTAAGAGATTTTAAAGAG

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 877>:

**GNMPI63TR gnm\_877**

GCCTAAAAACCAGCTCGGGCTACAGTTGGGCGTCCCGTCCCAACCCGCGGGGCTACTCCA  
GGGGCTTGAGAAGCACACCCAATCTAAATTCGAGTCTCCAGCTTCTTCAGATCCCGGG  
20 GATAGGAGTCAGCTTCGTGCAAACCCCGGGGAGTTCCGTACCTAGATCCCTCTCAACTCC  
ACCAGCCGCGTCTCTACCATCAGCACGGGCTTCGCAAACAAAGCTCGCCAATTCCTCAGC  
CGAAGCATCCCTAAAGTGGCTCCGGTCTTTAGGGTACGCTGGGTTTCAGGGTCATCATG  
GTCGTGGTTCTCTTCGCGAGTAGTACTCGGGCCTAATCGGCCAATCCTCCATCCGGTT  
CCATCCGTCGAGACGCCTACATGCTTCTTTCAGCACTACTAAGAAAGTCCCGCGCTCT  
25 CTGGCGCTCCTAAAGCGCTCATAGAATTCCTCAACCACAACCTCCAGAACCTAAAGGTC  
CCCCTGGTCCCGCGGCCCTCTCCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 878>:

**GNMPI65TR gnm\_878**

30 CTTGGGGTTCATAGCTTGTTCTTATAACTCTCGGCGACTTCTTGGTATACAACTTCGT  
TAATTGGGCGGGGCGACTCGGTTCTATCCGGGGTAGTAGGCAGCTCCGCGGGCAAATCG  
GCCGAGGCTAATTACTTCGTGTAAAGATCTATTTGCGGCGGGAGTCTCTAATGCAGCTTA  
TCTACTAGAAATATTTTCTTAGAATTAGATAAAGTATGCTTGCTTCTATTCTTGGGCTT  
CGGCATGCAGCTCGCTGCCTTCCTTTGCTTCTTTAGTATCTTCAGGCTTACGTCCTGCTT  
GGTAGGGGCTTCGATAAAATATTGTCTTCTTCAGGGCTATCTTGGGCTCTTATTTGATCT  
35 ACTTCTCTCTTTTCGAGAGGGGCAGCTCATTCCTTCTTCAGCAACTCTACTTATAAGGG  
GGCATCCCATCCAGTCTCCTAGATATCGTCGTCTTTTGGCTCCTCCTATCTACTTTAA  
TAAACGAGGGCTTCTAGAACTTGGGCCCTAGAGAAAATTCTGGTTCTTGTCCTCAGACT  
TAAATCTGCTATCTTTAACTAAAAGTTCTTGGTCTAGGCTGGCACTAAGAAGGTCGATAC  
40 GTTTGCTTCCGAAGGGGCGGGAAATCTAAATCAATTCCAAGTTCTCGGGGCTTCTAAG  
TACGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 879>:

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**GNMPI66TR gnm\_879**

ATATACGAGCATATAGAACTCGTAAGTCGCGCGGCTTTGCGGGGCCAACCCAGGCAATT  
GGTTAAAAGAACGGGGCAGGTGATTCTTTTACCCATACAGCGTTAACGCCTCCCCGGTA  
ATTCAGAACCAAAGGGGAAGTAAAGACAAGTAACTTGC GGGAAGGGGCGAAAGCTCCTA  
5 GGGTACATCCTAGGGGAGCTTGGCTTTGTTAGCTTCGCAGCGGTGAGCCTAAAATTCTGG  
TCCTCCGACCTCCGAAACTCGGTCTCTCTCGTCCTCACTGTGGTTAACTGCGGCTTCATC  
AGGGTTAAAATCTCTCTCCCTAACATTCCACTCCGCGGTTAAAAATTCTGTCCATACCGGT  
AAAATCCGTAGCTTGGTCCCAAGGTCCCCTACAGGCTCTTCTACCTAACTACCATCCAG  
10 CCGGTACATCCTAGCCTGGTGGTTCGGGTTTAAAGGGTCGCTCCAAGCAAATGTGTCCCTT  
GTCGAGGCTTAACTAGGGGCGTTAAGGTTGCAACTGCTTTCAATCAAGTCCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 880>:

**GNMPI67TR gnm\_880**

GGGGCTGCTTTnTCGGGGTAGGGCCGGAACCTCAATTAGTTAGAGGGACAATAAATGGAAA  
15 CGGTTTAGGGGGAGTAAAAATTGTGAAAGCAGGGGGAGCGGCCTTAGTGAAAGAAAATTG  
AGTATTCGGGGGAAGAATTTGCCCGGGTGGGGGATTAACAACATACATGCTTTGGCTGC  
TCGTCCAACCTCGGCGTGGGGTGCAAAGGGCACTTACTGCGGGGTAAAACCAGGAGGGGG  
TAGCGAGCGATGTAGAGGTCCGATACTATTGGGAGGACCCAGAGAACCATCAGGGGGGGT  
GAAAATGGTTGGCATTGGGGCGCTTCTGGTTTTGGGAGGACTCTCAGGTACTGTGCGGTT  
20 CATCATAAGAGTAAGAATCCTGGGCCTAGTCGGTTAACTTAAGCGGGTCTGCAAGAACCG  
CCGTACCGGCGTCCTGAAAGGAGAATTGGTCGTGGGTAATCGTGCGGGGAAAGTGTGAAT  
CGGCAGGGGTTTCGGGGGGAAGTTGGGGTGCCGTGATTGGAGAAATTATGGGGCTACTACG  
GATAATACTGGGAATTCTAGGAGGGGTGATTCTCGGGGCGCTCCGGGCGCTACTACGAGG  
CATAGTGTGTTTCGGATCTTGCTAATGCGATTGCTTCTAACGGGCCTAGACCTCCGAAG  
25 G

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 881>:

**GNMPI68TR gnm\_881**

CGATCTATCCTCCGAATCAAGTTCCTCACCTCTATCTGCGTGGCTCCTGGTACATCCGTG  
30 AAGGGCCGTCGGCTCAGGGCCTCCATGGTGGCCCTAGATCCCTTCAATCCCGCCTTCCAT  
ACCGAAACTTCAGCATCCGGGGGGTGGTCTCACGGGGGTTCAAGTCTGTTATAGTCCT  
CTCGTCAGCACTTCTATTCCGGTCAGCCTCGTGGTTAGTAGCGTCAAACTTTCTTTGCA  
GGCCTCGGCCTCCTGGGGGCGTCTCGGCCTTAGACTCACCGTCAGCGCTCTTAACACT  
AGCCTCTCCGGCCCGGTGAGCTGCGTCAATCTCTTCTCTCGAGTACCCTTGTCACCCGC  
35 TCCTCCGGTAGCGCGGTGGGCTTCATCTGTCTACAACGTTAATACATTCCGAAATGGC  
TTCTTCTGGGCTTCTCTCTCCGCAGCCAGGTCATCCTCCTGGTCTTTTCGCTTGGGAAGT  
CTCTTCACTCTCGACTCCAGGGGTAGCGTTCCAGATCCTCGCAACTCCGACGTCCAGGTC  
GGCAGCGTCCCTCCTACCAATGTAAGCTTCGGCCTCTCTACGTGCGCGACAAAGCTGGC  
ACTGCCGTCCGCGGCGTTAAGGTCC  
40

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 882>:

**GNMPI69TR gnm\_882**

AATACTCTCCTCTGGCTAAAAGAGCCCCAACACTGGCAGCTTCGGCCGCAATAGAGTAGG  
AAACTTCTGTACCTACATCTGGGCGTCTCTAAGATCTTACTCCGGCTCCAGAAGCCTGGG  
45 AAAATCCGTACAACTGCCGTGCGGGTGC GGGGGTCTTCTGCGAAAATCTTATCTGGGT

CCTCGCCGTCTCTATCTCCAGCACCCAAGAATCCGACGTCTTCGGCACGGGGGTTCGGGGT  
AGAAGGCGAATCAAGTAAACCCGGCTTGAGTTATAGCCTCAGAAACCGTCTTAAAAGTAT  
AAAGAGAGACATAAATTAAATCAGCTTCGCTCCAAGCGTCAACTTCAATATCCGTACCAG  
CTTACTTAACTTTTTCTAAAATAATCCTAAAGGTTACACAACGAATCATTCAAGGCATTAG  
5 CTTCTCTATAAAGGTCAGCCGTCAACTCAGAAAGGTTGCTCTCGTTGCGGCCAGATCTGC  
CGTCAGCGGGCTTCCTCTCGCCTCCTCTAGGGCTACCTCCGACGACGGGGCGTCCTAAC  
TTACTCGCTGCGTACTATGGTCGGCACTTCTGTTTCATTAGGGAAGTCTTAAGTTGGCAGT  
CAACAACGTTCGGCATCATCGGCGAAATCTTTCGAGTACTATTATCTTTCTCGGTAGGCT  
ACTAAATAGGTAAAA

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 883>:

**GNMPI70TR gnm\_883**

CGCCTGGGATGGATTGGGTGACGTAGCAGGGAGTGTGGCCGGGGGTGCTTTAAAAAGGA  
CTATAACGTTTGGTGCGGCGCACAAATGGGCCTAAAAAGAGACTACAGCCGGGCGGCTGC  
15 GCGGGGAGGGACAGGCCCCAGAGAGAGTTGCCGGCAAAATAATACGGGGCAGAGCTGAG  
CCATGCGCGGCCCTGACCAAAAAAGGGAGCAAAAACAACGAGTGCTAAACATGCTTAGCG  
CTACGTGGGGGGCGGCTTCCGTGGGGGGCGGTGCAGCTTCGTGCAACTACGTGTGCTATC  
ATTGGGCGCTCAAGAGGGCTGATATGGCCTAAGTTCGTTAGGGGGGTGTATCTGGAGCTG  
CATTGAGATTTTCTTTTCAGCTTTCATTGTTTCTTAAATTTATCAAACTTCGCCTGCTG  
20 CTGCGGCAGCCTCGGGCTTGCCGGCGCCTTTCCTCGCGGGGTTTATCAGGGCGCCAAGTT  
GCATCAATTGCTTCGTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 884>:

**GNMPI71TR gnm\_884**

GGGGAAATAGAGGGAGGGGTTCGGGAATACAAGAGAGTCAGGAGAGTACATCACTGGGCA  
GGCTTCCCGGGGCTGAGGGGGGCGGCGAAGAAGTAAAGGCTATCGGCATGAGCGTGGGTG  
TCCGAAAAAGAGAATCCACTAGGCGGGGAACCTGGGTAGAATCGGTAGGAAGGTTGATCT  
GAGTACCGACTTAACCCCAACTGGGAAGGGTAAAAACGGGTAAAGGGCCAATTAGGAACA  
AAGTAAGAAGCCGATTACAGGTTAAGCATAATAGAGTGGCCGAGCGTTAGTCCAGAACCAG  
30 AGGGGGGTGAATTGTCAGGAAAGTAGGTGTTAATGGTTAAGAGGTGGTAGTAGTTTATA  
TTTTCGTAGTAGATTAGGGCTTAAGAAAGCAAGGGGTTCGTAGATTTTGTAATAACGAA  
GAGGGTGGTGAACGGGGGAATGTATATAGAAGATATAGAAGAAGGAAGTGTAAAGATC  
AGGGACCGGGGAGTAAAGCGATTCCGGTGGCGGGTGGGTGCGAAGCGAGGTAGTCGA  
CGAACCGGTGCGGCAAGAAGGCGTGGGCTTTTTCCTAAGCAGACGAATAAGGGGTTTGGG  
35 GCTGGTTTAACTGGCGATGTTGAGGGTAGTAAATGTAGACATAGAGCGTCCAGAAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 885>:

**GNMPI72TR gnm\_885**

CGTGCCAGGTTTCTTGCTCTCCCAAGCATCCCGGGTAACAGGCTACGCGGCGTCCCAAGC  
40 ATCCCGGGTAACAGGCTCCGCGGCGTCCCAAGCATCAAGTTAGTTAGATCCAAATTGCTA  
TTATCGTAGGTTTATCCAACGCCCAAGTGACAAGTTTCCCGGGTACGTAGGGTTCAGAC  
AGGTTTCTTCTCGTCCCCGTGACAGGTTTCTTGCTCTCCCAAGCATCCCGGGTCACAGG  
CTCCGCGGCGTCCAATCTAATGCAATTCGTAGGTTTATCATACGCCCAAGTGACAAGTGT  
CCCCCGGTACGTAGGGTTTCAGACAGGTTTCTTCTCGTACCCCCGTGACAGGTTTCTTGCT  
45 CTCCCAAGCAGCCCGGGTAACAGGCTCCGAGGCGTCCCAAGCATCAAGTTAGTTAGATCC  
AAATTGCTATTATCGTAGGTTTATCAACGCCCAAGTGACAAGTTTCCCGGGTACGTAG

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GGTTCAGACAGGTTTCTTCTCGTACCCACGTGCCAGGTTTCTTGCTCTCCAAGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 886>:

**GNMPI73TR gnm\_886**

5 GCTTAATATTCTTCCAAGTCTTATCAATAAATTTCTTCTCGTCTTATTACGCTTGTCTT  
AAGTCCCTTCCTAATTCTTCTAAGATGTAGTGCTTTCTGGGCTTTCAGAGGCAGTACCCT  
CGCCGAAAGTTTTTAAATTCGCTTCAATACTTTTCAGAAATCCTCTCCGTCTCTTCAGCCA  
CCTAACTCTCCGTAGTTTTCGAAGTAAATTCCTCTAGAAGTGCTCTTAGATGCAGCTCCAG  
GGCAAGCATTAAGATGTCGGTAATCCTAAACTTGCTCTTACGGTCCATCTGGTCGGGTC  
10 CTCCGACGGCTCCGAACATGCTAAGCTTGTGGCTCTTACGGGCCATAAACCTCTAGTCAT  
CCTCTCTATGGGGGTCATTCTCGTCCGTACTCATAAACGAGTCTCTAGAGCTTCGGGCAT  
CCTCCTAGGTTTGGGCTCTCTTTCAGATACTGGCAGCTACTCTAACATAATTAAATATTA  
TCGGATCAGATGTAGTAATACTAGTAATATAAATATATTAAGTACCATCCCAGTCTTTCA  
GGTAAATATGAAGGGTAAAGGTAGAAGCAGGTTAATATGCAAAAAATTAAGTAAATAGTT  
15 AACTGCTTCTAAATTCTGCTCCTAATTCTTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 887>:

**GNMPI74TR gnm\_887**

GAGGGCATGGTCATTCTTAGTGTTAGCGGGGGTAGGTGGCCACTGGTTGCGGTGGGGACC  
20 TCCATAACAAGGAGCAATTTAAATTTTGGTTCCGGTCTTTCAGGATTTGGCATCAACGA  
ACGAGCTTAAGTCTAATCCGTACAGGCGACCTGGGCACTCCGGGGCCGGGCATAATCCG  
GGGCTCCATCCGGGCCCCGTGCTTCTGGGTCCAGAATACTTGCTGGTTTCTGGGTAAAGT  
GGTTCTGGGAAGTTAGGGCTTCGTTCAAGAAAATCCAGCCAGCTCCGGCCAAAGTACCAG  
GGCCTGCGGCTTCAGCTTCGTGCAAACTTCAGAGTCTGGTACATCCTAGGGGCAGGCTT  
25 CCCGGGGCTGAGGGGGCGGCGAAGAAGTAAAGTCTATCGGCATGAGCGTGGGTGTCCGA  
AAAAGAGAATCCACTAGTCGGCGCAAGTGGGTAGAATCCGTAGCAAGGTTTATATGAGTA  
CCTAATTAACCCCACTGGGAAGGGTAAAAACGGGTAAAGGGCCAATTAGGGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 888>:

**GNMPI76TR gnm\_888**

GGCTACCCTCCTCGGCACCTTCATCCTCATCCGGGGCTTCGGCGTGGGCTCCTCTACCCG  
TACGCGCTTCGGCAGGGTCTTGATATTAAACCAGAACACCGCCTCCTCCCTAAACTCGTT  
TGCTAGGTTTCAGCTTCTTAAACTTCGGGTCCCCCTGCTCTTCCGCACCACGGCCATCAT  
CCATCTCCGGATCTTCATTTCGCTTGGTTCGTCTCTCTCTTTGCTAGAAACCTGGTCAGCTT  
35 CTTCTCGGTCCCTACTGTGGTCTTCGAAACGCTGGGTACATTGGGCAGAATTAGTACCGA  
TCTCTTTCTCATCCGTCCCTACCAAGCGTCTATACCTCTATCCTAGTCTCTGACTCCGA  
ACGCACCAGCTTCGGGGTCTTCTCTTACCAAGGTCTTAAGCTCGTGGCCATCCGAAG  
CCGTCCCCCTGGCCGGCAACAAGCAGCCCAAGCGGTGGCGCGTAGAGCCGGGCGTTGGGT  
CCCCCTCCTCCTTCGGTACATCCTAGTTTCGTAGGGGGGCGCGGGGAAAATCACAGACACCA  
40 AAATCACGTTCTTCTAAAGGTGATGATGAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 889>:

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**GNMPI77TR gnm\_889**

ATAAAAATAGCTACAGGGGCTAAACGCCTTCGAGGCAGCCCTCCGGGGTTACTCAATCA  
CAAAGTGTCTGCCATACTCCTATTCTTAGGGGCAAGCTGGGAAAACTAAACCTAGACAT  
CTAGATCTTGGTCAGTTGAAACAAATTTTAGGCGTGCAAGGCAACCTATAACCGGGGTAC  
5 ATCCTAGGTAATAGTTGGTATCCGATGGATCCTCAACATCCCCTCCGGTACCCGCTAGGC  
CAATGCGGGCCCTAGGTTTGAGATTCTACTCCGCGTCTTCTAGTTCTTAGTCTAGCCAT  
AAAGATTCTGCTAAATGCAGGGCCTACCTAGGCCAGGCTTTCGGTTTCACGGTCTTCGT  
TGCTATCATCATATGCAGGGTCAGCTTCGTCAACAAAAGCCCTTGCTTCAGCGGGCGCA  
AATTCCTCCTTCAACCTACTACTCGACCTCGCCGAAAACGTAAACCAAACCTTCGTGCA  
10 AAACTCGGGATCAACAAGGCAATATTGGTACCCTCAAAGTAGGCTTCAATCGGGGAGTC  
CTCCTCCTCAAGAGGTGCTTTTCGTTGCAATCCTAAACCCTGCTTTCCTAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 890>:

**GNMPI78TR gnm\_890**

5 GTTCTTCTAATGGTCCGAGCTTTTCGTTGCAACCTGATTCTAACTTTGCTCTTGACGCA  
ACGATCCTACAAAAGGTCTGGCTTTTCGAAGCATTGGGAGTCAGATCTTCCCTCTCGAG  
TTTCTAGTCCTCTCCAACAATCTCCCTACGTCCAAGTCTAGTCTTAAATTTGCGATCAA  
TGCATCTCTTGCTCTCGGTTGCGGGGCGCGATTTCGTAGTCCTCAACCTCCGGTAACTCCG  
CTCGGCCTCCGCTCTTTGACCTCAGGATCGTAAGAGCTGCTAAGATGTCTTGGAGGTGCGG  
20 AGTGTCTTTTCAACCTGCTCTCGTGAGGGGCGCCAAAATTCTTCAAACCTCCTCCAGCTC  
CTGTAAGTGGGCCCTAGGATGCTGCATTCTTGCTAAACTGCCATGGCCGTCAGATTTCGT  
AGTAAACAATTAGGCCCTCCTCTCTAGTCCCAGGGTCCCTAAATTAGCAAAAATCGAAAA  
CTTCGGGGCCAAAATAATGCTATCAACTCTAACTAGTTTCTGGCTTCAGGGCTGGGGC  
TCTTCGGGGCATTCTAGGAGCCTGGATCCTAAAAGGGTCCAATAAGAA

25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 891>:

**GNMPI80TR gnm\_891**

AGCGAAACCGATGGACCAAAGCAGAAAATAAAAGACGGGGCGGTTTCGAGTTGCAACTAAG  
CTGGTTGAAACCAGGGGAAAGAGTTCTAAACGGAGGGAAAAGGACTGTAAGTTATGTAGCT  
30 TAGGAATGATCAGCAATAAGAGGTGGGGTTGGCCGCCGGGCAAAAGCTACAACTAAGAG  
AGTACAACGAAGGCATAGGGAGGGGCAAGAATGCCTAGGTTAAATTGAGGATTGGGGCT  
GACAAATTAACACGCCCTGCTTGCGGGGACAGAGGTACAGCAAGTACCGAAGTTGAAAAG  
GAGACGACGGAAGGGACAGAAGATAGAAGAGGATCACATGGGGCAAAAGGGGCAGATGGC  
CTGAAAACAACTGCAAAAGCAGCCGGCCGACTAATTCGACCGTCCAGGTGTCAAGTTCAT  
35 AGGGGGTAATACTCCTAGGGTCCAAATCAGACATCTCGTAAAGAGGGGGCGTCCAGATAA  
AGAGTTCATTGATAGTGTGCTCTACTAAATGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 892>:

**GNMPI82TR gnm\_892**

40 CGGCGGGGTAGGAGGGGGTTGGAGTGATCCAGGTCCCGGGCGGGCCACCTCTCCTG  
GTTCTGGTTCCCTCCTCTCTCCAGCGCTTGAGAGCGCTCCGGTCTCGGTCCCTCCAGA  
GCAACTATCTTTGACCAGGGCGTAGGAAGGGGGCTTGGCCGTGTCCTGGTGGTTAAGTAT  
CAAATATTTCTTAACCTAAATATGCGCTTCTTCTAACCACCTCCTCCGGTCCCCGA  
CTTCTGTAGATACCAACATCCTAAAACTACGAGTACCAGCCTCTGCAGCAACTTCGA  
45 TACGGCTTCTCTTGCGGCAACCGGGCCGTGGCTTCGAGCCGGGTGCTTCCATCCTGGC

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GGTGGGGGTTCTTAGGCTTAGAAGCTCCGTGCTTTTCGGCTGCAAAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 893>:

**GNMPI83TR gnm\_893**

5 AACTGATGCCGGAGAGACAGACAGTTACGATGCAGGAGAGGCGTGTAACAAATGGAAAAG  
GTACATAGGGAGAGGAAGGAACACCGGGGACTAACACGCTTCGTAAAAGAGACCCCTCTAG  
TAGTCAAGGTCTCAAACATAAATCTGATCAGCAATCGGGTAACCAGGGCAAAAAACAAGT  
TAGACCTGAGTGCAATTCCTAGTTTCCGGGCCGCGTTCATGATTGCAACCTCCTAAGTAA  
CTGCGTCCGGTACAAAAATTAATAGTACTATCTTGAAAATTCGAGGTATAAATTGCTGTTG  
10 GGGTAAAATAGGGCTAGGGGAAACTTCGGAGAAGCTTCGTGCAATAGTGCTTTCATTATA  
GGAGATCGCAAGCGTCTACAGGCGGGGTGGGGCGAAATGGAGAGGAAAAGTTATGGATT  
CAGGTATCTTAGCTTCTTAGTTTGTCTTTAGTGCTATTAGTTCACTATATGCGTCTAGC  
CC

15 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 894>:

**GNMPI84TR gnm\_894**

ATCATTCTCAGATCCTCATCCTCGCTCCTGTCAACGTCTTCATATTGCGTTTCTTGATAG  
TTCTCATGGGTGCTGTCTCTAAGGTAAATGCATTCTTCTTCAATGTGAGTACCGTAAACC  
TTTCCGTAATTGTGCGCTCTTGTAATCTTCGTTTTCATTGACGTAATTCCTTTCAGGGCAA  
20 AGGGTTTATATATATCTTCCCTACATGCAACTTGGCCCTAAAATTCCTCGTTAGAGGTCA  
GGGCCGCTCTTAAGTCTTAGTTGCTGCTATTATTTTGATTAAAGTCGGTCATTTTCGGCG  
TCAAAGCAGCTCTCAACTTCTTCTTCAATTTCTTCGCTGGCTTCGTAAAAGCATCAGGGA  
TTCTATTCTATCTCGGTTCAATGTGCTTCTTTGAGCAACCTCCTATGTCTTCTCTAA  
ATAACGAATTCGTCGTCGTCAATGCAGCCTCTCGGGGCATCAACTTAATAATCGTAATGC  
25 CCTCAACTACTGTCAACACCTCCCTCTCTATCGTCGCGATCCTCGCGGTCTGATAAACG  
TTATCTTAAAAGCCTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 895>:

**GNMPI85TR gnm\_895**

30 CGCTGGGTCATGAGTGCTTGCAGCTGCGTCTGCGCGGTAGCAACAAAGTGGTTTCGCTTC  
GCTTCTCTGGGCACTACAGTCCGTACTTTGGGGGTCTAATTGCCCCAGGCCCTAGGCGTG  
GGCAGGGGCATCCGCAGCCACGGCCGCGCCTGTGTCTTGCGCAGGGCCGCTAGTATTCGT  
CGAGACCCCTCATTAAGTACTACTATCGTCCAAGGCTTCAAACCTCGGGGTCTGGGGGGT  
AGTATCTTCAGCATCCGTAACCCCTCGGGGTGCAATAAAAGCCGGGGATTTAATCCAGTT  
35 CACGTTCTAAACACGGGCGTGGGCATAGGGGCCGTCAGCATCATCATTGCTCTCGCGGTG  
GGTATAGTCGGGGTCGTAAATACTTCCCTTCGGGGTACTGGTACGTTCTCTATCGTCAAA  
GAGGCGGTCTTTATCTTCGAAACTCACCTCCGTACCGTCCGCGGTCCGAACGTACTCGC  
TTCATCTGTCAACGTAGCCCTCGCCTCCAAC

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 896>:

**GNMPI86TR gnm\_896**

TCCGTAAGTTAACCTCATAGGTGGACATTTGCGCGCGAAAGTACCCCGAGGGGGCTCGCC  
AAAGTCGTAAATCTGGCCAGCAACCTGGCATTAAAGTAAAGATTACAGAAATAAATGTCTA

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GGAATTATAGGGGAAAAAAGTAACGGGGGCCAACGATGCTTATCGAGCGACCGACTGGGC  
ATTTCAGAGGGCTAGAAAAATGTTGGGCTGCCGCAAACCAAGGAGGGGCTTAAGGGGAAAA  
GAGGGTGCCTATTAAAGACGATAAGCATAAACATAAGTAGCTTAAGCAGGAAAGTACCAG  
ACTGACAAGCACGTAAGAATCGTAAGCTGTTTCTTCTGAGTATATTTCAGAGGCAGCAGAA  
5 GCGTAGGCCAGCGAAAAAGTAGCTGCCTGGGCAGAGCCAGGGTGGGAGGGGCAGGGGGCT  
GTACGACAGAGAACTATACCTTACGGGCTAAGTAAGCTTAAAAAGCTTCGCTTAAGTAGTA  
CGGCAGAAGGCCCTACTGCTGTACTATTTCAGAAAATCTTGAAGTATGGTGAGTATTTTAA  
AGAATCTTAAGAGGAGTGCCTCGGAGTTTCTTAAAAAGCTTATATCGGGGGGAGATCTTA  
CTCGTAGATTAAGCCTGCAGACTCTTAAGAGAGACATAAACTGCGTTCTACTAGAGTGA  
10 CATGAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 897>:

**GNMPI87TR gnm\_897**

GTATAGCTTCAGCGTCCTGGGTGCGGGCCGGGGCCGAAGTTCGGGGTGAATGGGCCTAGA  
15 AGTCGGTACGGGCATCCTCCTAACCGGCCCCCTCAACCACATCAACTTCCAGTGGATCTT  
CGGGGGTGGTACCAGCCTCCGGGTAAATTGCGGGGTCAGCTTTCAAGAGGGCAGCGGTAA  
GGTCGTAACCGGTCTTTGGGAGCTTCGGGTCTATTCTAAATTCTTCCCCGTAACCTTGT  
CCTCTAGTTGCTTCCAATCCAAGTTTTCGCTGCTTCAGGCATCCGGTAAATTTCTCTTT  
CGGGTAAAGATTCCCTCAGCGCCATCCATACCAGCTCTTGCATCAAAACATACTTCAGATT  
20 CGGGTTAGGAGTCCCTCGCCCTCATAGGAGCTGTCTACTAAGGAGTTCGGTCAGGATTGC  
TTTCAGATTAAGAGGTGCAAAAATCGTCAAGTGCTTGGCTAACATCTCCATAGGATTTCGT  
CCTAATTGTCAACCTATCTGCGGGCATCAACCTCCGATCTTCAAAAAGCGCTAAATTTTT  
AAAAGAGCTGAGCTAGGTTCAATCTTTGGTCTAGATCCCTAAGATTGGCTTCATCTCCCA  
GGTCATGATTGTACTGGTCTTAATAATTATACT  
25

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 898>:

**GNMPI88TR gnm\_898**

CGTAAGAAAAATACTCGTACTCCTGGCAGGGGCCCTGCGCCTCTCTCGGTGCTTAAAC  
TCTCTCGGTACTGGCAAAGCGGTCTTAATTTCTTCTGCTAGTAGTCTAGTTGCTATTTCG  
30 GGCTCAAGACCAAGAACCCGGCAGCATCCTATTTCCGGGGTAATGTTAACTTCGGCTGGAA  
TATTATTATCCGGGGAGGTAGGGGCGTCAGGGGTAAAGTTCAAAGACTTCAGCCAGGGC  
TCTTAAAGTGGTCTTGGGGCTTACGGGCAATCGTGCTGGGGGCGTTGGGGTCGGGAAGGT  
AAAGGGTCTGGTGGGCTTCGTTTCATCATATTACGGGGATTCTTCTAGTTAGCTTCTTTGC  
TAGGGTGGTTGCAAATATCTCTATCTTGGGCATTACTTTCGTCGGAAATCTCGTGATGCT  
35 TCGTAAATCCGAACTAACGGCGAAGAGGTAGTCGGAAAGCGGCTATTTCGACTCTAAAAG  
AGAGGCTCCGGGGAACCGGGCAGAGGCTTTTATCGGGGTCTCTGAGTGTCCCGTCCCAA  
GGGAGCTCCnGTCGTTATAAGTAGAAATCCCTCTATCCTACTTAAGCTAGTAATCCCAGG  
CGTAAATAAAGTTGGTAAGCTTGG

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 899>:

**GNMPI89TR gnm\_899**

GACAGACAGGCTCTTAAATCCAAAGTCTCCCTAGTCATCCCTACTTTACGCTTAAAGGC  
CTGGTAATTCGAGTTAGATTGGCCGTGGCTACAGCAGACCTCTCCAGGGGCGGAAGTACT  
TTCAGCTTCCCGTTGGTTGCATCTACAGACATCAGCAGCTTCTCTTTGTGCGTGCGATT  
45 CTTTGTAGCCTTCTGGTAACGGCACCGTTCTACGTCTAGGGGTGTACAATACTCTAGTC  
ATTCGTACCTAGGTCCACGCCAGCTCTCGTACAATTCCAGGCTTCGTGCAAAAAGGATTC

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ATCCGTACTCTCATCGCGGTTGCTTTCGGGCTTGTGGTAAACATCGCTAGTCGAAAGATC  
TTT TAGGTCCGTCCTACCTCCTACCAGCTTATAGCCGGTAATAGGGTACATAGTGGTATG  
TTTAGTGGGGTTCCTACATAGATTTAATACTACGGGTAAACCGGGCCATAAAC

- 5 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 900>:

**GNMPI90TR gnm\_900**

CCTTGTGTCCCAACCTGCATTCTCGGCTACTGGCTACAATAACCGGAGTACAGGCTATGG  
GGTCAGAAACCTGCTTCTTCCCCTCAATATCTTCTTCTTGAGCGGCTTCTTCTTAGCTGT  
CTCTTGCTCCTCCAACCTCCGTCACCTTATCTTTCAACGCGGTACCTGCCCTACCTACCT  
10 AGTTTCTGGGCCTCTCCTAGTTCAGCTTCGTGCAATATCTATATCAGCAGCTACCAAAAT  
CCTACTTGTCAGGCGCGCTATCCCTACCATAACTTAGGAGTTACTCACGGTCGTTCCTTAG  
TGTAATCTCCTCCTCGACTCCAGCATCAAAGTCGTTCGGCCTCTCTTCATCATAGTCTT  
CAATCTCAATTCTAATGTCCTCCATCGGGGTACATCCTAGTGATTGCTTCATTCAACCT  
TACTGTCATCCCTCCTAAAGAGGCGTGCTATGGCTTCATCTGGGCCATCAATGCAATCGT  
15 TTTGCTTAGGCCCAATATCAAGCTCGTTTTCAACCTTGCTAACTTTAAGATCATGCCTGC  
AGTCATGCTTCTCCTGATCCTCTAAAAATTCTCGCCAATTAAGTTTTTCACTATATTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 901>:

**GNMPI91TR gnm\_901**

20 TTCTGCGGCCCGCGGCTGCTCGGGGTTTTGCTTTTGCTGGTTCCCTAGTAGGCTTCATAAA  
GTTCTTTTGAAAAATTAATAACTTCGGAGGTGGTACATACTAAATCCGGGCTTCTAACGT  
AAGAGGTAAATGTTCTAGTTTAACTCGGGTGCAGGAATTCAGGTAACTACGGTCAGCGG  
CAGCAAAAACCTCGAAGATGAAATAATACTTCTACTAAGATCTAAATCTAATGTCCGCCA  
GCCAGGTAACCTAAGTTTGTAGTGCCTATCTCCTCAACTCTCCCGAAGGCGCAATTACAGG  
25 CATACTACGAAGTTGGTTCGGCGGCAATCCGGAGAGTCAACGTCCTCCTAAATCTCTTCAA  
CGACGTCGGCTTAAGTTCGTCCCTAGTTCGCGCAAGCCTCCTCCAGGCAGGAAGCTTCTG  
GTCCGGATCTGCATGGTCCCTCGGTTGCGGGGCAAGAATCCTAAGTGCATCCCTGGGCAG  
CGGGTGGTCCCGAAACGTGCGAGGCCCCCTAAACCGGGCCAGATTGTGCAGCTTCAGGAT  
ATTTTCGAGTTGGACGTGCTGCTGCAAAGTAAGCTCCCTCGGGCCCCGAAACAGCGTAAC  
30 CGCCGGGTCCCGAACATAAAGGCCAGGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 902>:

**GNMPI92TR gnm\_902**

35 TTACTGGTGGCATCATCCTGGCTACAGCGGCTACTATACCCCTACCAGCTCCTCCCTAG  
GCTAATCCTCCAACCTCCGATTGGTTAGAGCTATAAACCTAAACCTAGCCGCTCTCAACG  
CGGTTCTATATCTAAGAGCTCTCAGGCGATTTCCTAATCTTCTAGTCTTATCGTTTCGA  
GTTGATGCTCCCTAATCTACCTACTACTCTCCACCTCTACTTGGGTGATCGTACTGTCTT  
CGGTCCTAGTCGGGGCCTCTATAATCCTAATTGTATTAAATATGCTTCAATGCGAGCAAAA  
TCGCGCGAATAAATATTGCTCTTATCGTAATATTACTGTTCAAGTTCAACGTGGCTGTAA  
40 TCGAGGTCTCTATCAAGGATCTTCTCAACGTGTGAAAAATCTTCATTTCCATTCCCTGTAA  
GCTTCATAAGAGGGGTAATCTTCGGCTTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 903>:



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**GNMPI93TR gnm\_903**

5 GCAAAACCTTCGCTTCAGAACTTAACGCGCGGGGGGCTCGGGCTCTGTCTGGCCTCCAG  
CCGGCACCTAAGCAATTCGGGTTAATAGTCAAAAGCTTCAACGTACTCGCCTCAAAATCAT  
TACTACTAGAAAGATTCTAAATAAAATTTCGATTCAATCCTAGTGGTAGAAATATGCTCCC  
10 TAAGATCAGAAAAAGTAAGTTTCCTTTTGCCTGTCCGGTAAAATTCAACCTCAATATTCC  
TCCAAAAAGTATTACCTTCCTAACTACTCAAATTAACACCGGTAGTTATAGAAGTCGAGC  
CTTCCAATCCAATAGAGTTGCAGTGGGGTTTTAAAGAGCAACTCGACCGAAGTAGCCTCCA  
AATCTTCAGCTGTAACCTAAAAATCTTGCCTTGAACTTCGAAGTAGTCGAGTCCTGGG  
AAACGATCATTAAGGTCCGGGCACTACCAAACATATCTTTGTTAGGCTATTTCTACTCG  
15 TACTCAATCCAGGCTTACTCTAAGAAACACCAGAAATACTTTTCCTAGTACAGAATCCGG  
GCTTGGGGTAAGCTTCGTGCAAAGCTTCTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 904>:

**GNMPI95TR gnm\_904**

15 TTGGGAATCGCTTGGTCAATATCCGGGTCTTCGTCTCTAATACTAAGATTCTTGGCTTCG  
CCGTCTCCGGCCTACTTGCAGAGGTTCTTATAAACCTCTAAAGTTCGTTTCTCTAGAGGC  
TAATAATATTCTCGTTACGGTTATTAATACTCGGGTACTACTATCCTCCTAGTCCTAGG  
CTTTTCTTCTCAGCTTCGTGCAAATACTCAGGCTATCCAACCTCTAGGGGTGATGGTTGG  
20 CCCTACCATAAAAGGCAGCTTCAGATTCAATATCCTAATTTCGGGGCTTCTTTCGTTGCAT  
TCGGGTAAGTACAAGCTTCTTAAAGGGCGTCTCGTTCATAATTAAAGTAGGCCCTTATGG  
AAGTGCTATAGTTAAATTGAAATCTCATAACCTCTTTCATATCTTATGCTTCTAATACC  
TCATACTCAATTTAATGTAGATGCTCCTTCCGTAAATATTTACTTAAAATGCAATAGTAC  
ATATGTCTTTAAATCCGCTCATTATGGTTCTTTTGCTTCTTTTGCTTGGATGGGCTAC  
CGCCCGTATCTAGAGCCGGGGCGCTCTTGGCGTTCCTCTAAGTTCTCTTAAGGTTACGAG  
25 TGTCGTGCGCTGCCATCTCTATGTGCTGGTAAGCTTCGTGCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 905>:

**GNMPI96TR gnm\_905**

30 CTCCCGGGTCTCTTAAATCACAGACGTCTCTACCCCTCCTAGACCTCCCGGCAGCTACGC  
CCCCACAGCTTCCGCCGCGTGGTCGTCTGCGTCAGCGCCGACCTCGGCCCGTCAA  
CTCCAGGGCTGCTAGCATCCTGGCTCTTAAGCTTGCTCTTGCAATAATCGTCAAAGGCAA  
GGGGGTCAACAGGTCGGTAATACCTCCAGGGTCTTATTCTGAAAGGTTCTATGCGCGGG  
CACCAGCACCTCGGCAGAAAGTGGTCGGCGGCAGGGGACCTAAGAAAGTCCGGGGTACCCG  
TAGCAGGGGAGCGTCCCCCTCCAAGCCTGCAACTCGCAAGGAGACTCCAGAGCCTCCTCC  
35 TGCGGCTAACTGGCCAGGCCGAGTCGTTGTAAAATGGGAGACGCCAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 906>:

**GNMPJ16TF gnm\_906**

40 GTTGTCCAGTGGGGGGGGGGGCTTCCACATCCAGCGCGTCTTTCAAAATCGCAGCGGT  
ATCGTGGTATTCAAACCTTTCAGGTCAAACAGGTTGCCCAATACGCGCAACACTTTCCA  
CAGCGGACGCGAATCGCCGAAGCCTTGTAACACGCGGTGGAAGGATTGCAGACGGCCTTC  
CATATTGATGAAGCTGCCTGAGGTTTCGGTAAAACGGTGCAACCGGCAGCAAAACGTCCA  
AAACGTCAAGCACGGTTTCGCTGAAAACGGCGTAAACGCAATCAGCCTTTTGGCCGGTT  
TCAACGCG

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 907>:

**GNMPJ71TR gnm\_907**

5 GACGAATCGGTGTGGACTGAGATGGCAAAGATCGTGTTGACCCTTAAAAGGTCGCTTAGT  
GGCCCGGCCCTAGCCTACTAACGATAICGGTGGTGCGTGTTAGCTTGTCCTTAAC  
ACTAGGTGGCTGGGTCCGGTGCTGTGTAGTACCCCTCGTATGGCCATGTTACCCGTGGG  
TTGGTGGCGTAATATAAATAGTTGATGGTGACCCTCGTTATAGGGACGTTGCCGCTGTCT  
AACATTGTGTTGCTAACGTTGACCCTGTGAATCTGCCGATGACGACGATTTACCCCTG  
10 CCTGGGCTCCCCGTGTTACTAGGTCCCCGAGTGTGGCGGCCCGTTGCGCGTTAGAAAA  
TTCGAAACTAGGCGGATCCCGGCCACCCCTACCCCTCACGCGACGCTTTATCCCAAACCC  
GAAGACAGGGCGCCCCAAACGACCAACAACGCCAAAAGCGACGGTAGTCGCCACTACGC  
CTCCTACTAACCATAACCGGCTTAGTAAACCTGACACACTGGTCGATACTGTTGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 908>:

**GNMPJ73TR gnm\_908**

CGGTGTGCGAAACGGTGTAGGACCCGGCCGACCACGTTGACGAAATGGCGTTGATTCGTC  
GGCGCCGGCATGTATGGATGCATTGGGTGACGTATTCCCCAACGGGTAGCCCCGTTGA  
AATGGCAACGTGTTAAAGTTATTCGTTGTCCCCGACCCTTGTCAGTACAAGTTGAAGAG  
20 GTGCAGAAACCCCTAGCCCGAAGGTTCCAAACGCGACCCCTACACCCAAGGTCCCCAA  
CCCACTCGCCCCCAATGGGAGGGTAGCACGTTCCGACCATACTGTACTCTGTGTGTGCT  
GATAGTTCGTGTGACACTAAACTATTTTCTACCCTTCGTTGTACATGGATGGCCTGCGT  
TCCACCGAACGTGGTAACATTAAAGCGACCCGCATTGTCTTACAGACGAAAATGCCTTG  
TTGCCCTCGTGTGGCAAAATTAAGGTCGGGCAATGGTGGAACATGGGACGTCGTTTCGTT  
25 CTAATCGTCCTTTGGACGTCTTGTGAAGTCCTGGTGGGTAAATAGCTTGGGTGTATATAA  
GAACTTAATGCCCCGACTGGGTGCCTTTTCGTGTGTGGCTGCGGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 909>:

**GNMPJ75TR gnm\_909**

30 CCTGGGTAAAGTAAACCCCCCTGGTAAAGTAAAAATTTGAACAACCTGGGGGCCCTCGA  
ACGGGCGCCCCGTAGCGATTATCCCTGTACGGAAGAATTATATCACTACTGGTGTGCGAG  
CTGCCCTATGGCTTCGCCTGGGACGGGAAGGTGCGGGATTAATCTGTACGCTTGTAA  
TCCAAATCGCCATAAAGTGGCAAAGTTCCAACTAACACACCTGGCAACGATCGAACTAGC  
TAGCAAGTCCCCACTCTCCGAAGCCTCCTAAACGACAGAGCTAAGTTCTATGAGTAACCA  
GCACGGGCCAGTCCCTATGTGCCATTGTGTCCCTATATTTTATTCACTAATGCTTCGGCTC  
35 TGAATGATCTCCAGCGTGGCCAAATTGTAAGGGAAGCTCTACTCCTAGGTGAGCCCTGT  
GTCCAGACGTCCTTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 910>:

**GNMPJ76TR gnm\_910**

40 TTGCGCTAGGACGCTCGTTCGACATAGTTATGTTAAAAACGTGGTTGTGTTTGTATTGCG  
CGTGATAATGGTGATGCACCCGTTGTGCACGTGCCTAAACGTTGCTCGAAGTTTCGTTTCG  
TTACCTTTTACGTCCTCGATTGGTTGATGTCTGGATACTCGTATGATGGGACAATCGAC  
TGTTTAATGGCTCACTTATACTCGACTTCTCTTGGTACTGTGCACTAGTTAAAGTGCTAA

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ACTCCTGAGCCTAAAATTTTCGTACATTGTTTTGTTACCCCTAGTAGGCTTTGGAGGGCAA  
 AGGTGACGAGTAGTGAAGTGGGCATGTCTAACACGGTGTAGATGGCTAGGTAGGTAAAAA  
 CACCTATTATTTGTTGCTAGTTCCTTAATTTAAATACCCGGATGTAAGTAGGTAGG  
 GTAGGTAACTAGTAGTTATATTAATGTTTACACTGGGCCCCGTTCCGGCTGGTGTAAGTT  
 5 AGTTCGGTACTTGTGATAATACAAACACTGTTTATATTAATACGGGTAGGACAAATGTAG  
 TGATGATTTACGTTGTGTTACCTTCGCCCCCTTGCTTATACCTTAACCTACACCCATT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 911>:

**GNMPJ77TR gnm\_911**

10 TAGGCGTGGCTCCTCGTGGTGGGTCGGCAAATAAGGCCGAGTTGTTGCCTGCCCCGGCT  
 GCACTCCCTCCGTAAATTAATTGCCGCAGGTAACCCTCCCCCGTCACTTAAGTCGCCG  
 CCACCGTTGGCCGCGAGTAACACTCCACCGTTTCGCAACGGCAATGGCGGACCTCCCGCTC  
 CGACCGCGGCCGATAACTACTGCTTTCCTACTGGCACCCCGAACATGGCGGAATTAAAGT  
 TAACGTTTGCCCCAA

15

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 912>:

**GNMPJ79TR gnm\_912**

TTTCAGAACGGGTGCTATTCATACCGTGCCAGGTTTCTTGCTCTCCCAAGCATCAGGTCC  
 CGAGGGTGATCCGGTCCCTAGGTTTCATAACCGCCAGGGGTAACCGCGGCGAGACCCGC  
 20 GACCACCAGGTCGAAAACCGCACGGAGACCCGCCGAAACAAAGCTCGCCAATTCTCAG  
 CCGAAGCATCCCTAAAGTGGCTCCGGTTCTTTAGGGTACGCTGGGTTTCAGGGTCATCAT  
 GGTTCGTGGTTCTCTTCGCGAGTAGTACTCGGGGCCCTAATCGGCCCAATCCTCCATCCGGT  
 TCCATCCGTCCGAGACGCCTACATGCTTCTCTTCAGCACTACTAAGAAAGTCCCGCGCTC  
 TCTGGCGCTCCTAAAGCGCCTCATAGAATTCTTCAAACACAACCTCCAGAACCTAAAGGT  
 25 CCCCCTGGTCCCCGCGGCCCTCTCCCTAGAAGTCAGCATCCTCACCTACGTGGCTCGGGT  
 CTTCTCGTTTCGAAGTAGCGCGCTTGTTCTGCTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 913>:

**GNMPJ80TR gnm\_913**

30 CGTCGTGCAAACCTCCTGGTTGGCCGCCGGAATTTAGGGTAAGTCTCCGGGCCCTAACTG  
 CCGCCGCTACTGTCTCTTATGTCTCTAGTTCTACCGCTCATACCAAAGAGGCCTCCCATT  
 ATGCTATTACTGCTGGCGGCCATAACTGGGAGTCTCGGTCTCTGCCAACTGCGTTTAAA  
 GCGGTACAGACCTAACCAAAGTCCATGCTGGCGTCCGAAAATCTGTCGCTCTTGGCCTGC  
 AACTAGTCTCTCTGGTGACTCCTTCTGTCTCTCCCGTGGCAAGTCATACTCTCCATCTAA  
 35 GTATTAAGAGGGTTCCTAGCTACGTCTCGGGTGGTCTTCTTACTAAAAGCTCTCTCAGGG  
 GTCCCGTCAGCCCGACCTCTCTGAGTGCGGTCTTCACGGGCCGTAACCTCGGAATCTCGCG  
 GCCGATTACAGAGCATTTCAATGCGGGGCTACCTTCGTGCAAATAGGCCTTCCAG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 914>:

**GNMPL04TF gnm\_914**

40 TGAGATAATTCGCGCCTTGGATAGCATGGAAAACATGACCGAAGAGCTGCAACACTGCTT  
 TGAAGCACCTTTTTACACGCTCGGCCCGCTCGTTACCGACATCGCACCCGGCTACGACCA  
 CATCACCTCGGGCATAGGCGCGGCCAATATCGGCTGGTACGGCACGGCGATGCTTTGTTA

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CGTTACCCCCGAAAGAGCATTGTTGGGGCTGCCCCGACAAAGAAGACGTGCGCACCGGCATCAT  
 CACCTACAAACTCGCCGCCCACGCCGCGATCTCGCCAAAGGCTGGCCGGGCGCACAAAT  
 ACGTGACAACGCCCTGAGCAAAGCGGTTTCGAGTTCCGCTGGCGCGACCAATTTTCGCTT  
 AAGCCTCGACCCTGAACGTGCCGAGAGCTTCCACGACGATACTCTGCCTGGCCGAAGGCG  
 5 CGAAAATCGCCCACTTCTGCTCGATGTGCGGCCCCAAATTCTGCTCGATGAAAATCACGC  
 AGGAAGTGCGCGACTACGCCGACAAGCAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 915>:

#### GNMPL55TF gnm\_915

10 TCCTACCTTTTCTTATATGCTCCAGTGCAAAAGTAAAAATACCACTTGGGATATGGAGAG  
 GGTTTAACTTTGTATTGGGTTGGCAGCAGACCATCAAAACCTGCCCGTCATCGCCAAA  
 ATCGCCGAAGATTGCGGCATCGCCGCCCTTGGCGTCCACGGACGCACGCGTACGCAAATG  
 TACAAAGGCGAAGCGCGTTACGAACATCATCGCCGAAACCAAATGCCGTCTGAACATCCCG  
 GTCTGGGTCAACGGCGACATTACTTCGCCGCAAAAAGCCCAAGCCGTCTCAAACAAACC  
 15 GCCGCCGACGGCATTATGATAGGGCGCGCGCAAGGCAAGCCGTGGTTCTTCCGCGAT  
 TTGAAACATTATGCCGAACACGGTGTTTTGCCGCTGCCTTGAGTTTGGCAGAATGCGCC  
 GCCGCTATTTTGAACCACATCCGCGCCATACAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 916>:

#### 20 GNMPL69TRD gnm\_916

AAGTTGGCAACGTCGTTTGTCTCGTACTTAGCCCCGACCGTTTGCTTGTCGTGGCCGAGGGT  
 GGCAATGGCTAACCTTGTACACCTGAACGCCCCCTCCGCCTGCGAAACGTTGCTAGGCA  
 AGGCGTAACAAAAATGGTGGATAATAGTAGATAGTCCACGGTGGTAAATTACATTTAGTG  
 ACAACACAGCGGACCAACCCAAATTAGCATAGTGCCGTTCTGTTCCAGTCTAAAGAGAA  
 25 TGACCTCTCAAGGCGTCGAAGTATTAAGCGAACTGGCCTTGTCATCACCCGCATCGCTCGT  
 GGTCTGCTGTTCCGCTTCGACCCAAACCCAACTTATCACACCCTATGTCCATTTTCCGC  
 CCTCTAAACGTTGCTCGAAACAAGTGGTCCAACACACCGCCCATAGCACCGGGAAGTACA  
 ATAGATAAACGTTGCTCGAAACACCCCTAGATGGGACCCTCCACTTGAAATGGACCACC  
 CCCGTGCCCTAATTGTCCCTAACGTATGT

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 917>:

#### gnm\_917

GGCTAGGGAGAGGGCGGCAACCGTAGGTTTGCTTGAGCGGTATTTCAACATACAGGCT  
 GCTTTTCAATTCGTTGAAACCGCACTTTAGCTTCGCAGAAACCCCCGCTTCCTTCGGAA  
 35 GCTCCGTTTTCAGACGACTCCCTACTTTTTCCCGCCGCAACGGGTTCTGCCTTTTAA  
 CGCCGCCTTCAACTGCTCCGCCGCTTGATCAAACCTGCGTCCGATGTTGCCTkTCATCAGG  
 CGCAGACCGCGTCCGGGGAGAACGGGTTGTCAGCTTTGCGCAGGATGTCGTCGTTGCCG  
 CTGGTTTTCGGGGCTTCGCGCCATTCGAGTTTCCCGTCGTTAAGGATGGCGGCGGTACGG  
 TCGATGATGAAAATCCAATCGGGGTTTTCTCTTTGATGTATTCGAAGGAAACAGGCTGC  
 40 CCGTGCCCCCTGCGTTGCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 918>:

**GNMPO23TF gnm\_918**

ACTTCATGTTACGTTCAAAAAATTTAATGCACTCAATATATTTTTTTAAGGAGAAGCAGGT  
GAGTCAAACCGATACGCAACGGGACGGACGATTTTTACGCACAGTCGAATGGCTGGGCAA  
TATGTTGCCGCATCCGGTTACGCTTTTTATTTTTCATTGTGTTATTGCTGATTGCCTC  
5 TGCCGTCGGTGCGTATTTCCGACTATCCGTCCCCGATCCGCGCCCTGTTGGTGCGAAAGG  
ACGTGCCGATGGGCGGCGCATGAAGCGGTGTGCGCCTTCGACGCCGCTGTCGCTCCATTC  
GAGGGACTGTTCCGGCGGTGCGGCGAACATCATAAACAGGCGGGCGGTGTCCGCGCCGTA  
GGCGTTAATCAGTTCTTGCGGATCGACGCCGTTGTTTTTGGACTTGACATTTTTTCCGT  
GCCGCTGATGACGACGGGCAGCCCGTCGGCTTTGAAGACGGCGGAAATGGGGCGGCCCTT  
10 GTCGTCGAACGTCAGCTCGACATCCGGGGGTTGATCCAATCTTTGCCGCCTTTGTCTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 919>:

**gnm\_919**

GCGGGTTCGGAAATTGTGCTGAACCGGATTATCTGCTGGGAATTGCTTTGCCTGTTTGGG  
15 GCGTGGCGTATTTCTGGCGGTTGTCCTGACGGTTTGGTGGGCGTGGGCAAGGGCTAAAT  
AAATCAATGCCGCTCTGAAAGGTTGACGCGCATTTTATTGTATGCTGCTGTGCTGCGTA  
TCAGTCCAGATTCAATACGGCGGAAGTGTAACGTCCTGCACGTCGTCCAAGTCTTCCAG  
CGCGTCAATCAGTTTTTGCATTTTGACGGCATCGTCGCCGGAGAGTTCGGTTTCGTTTTG  
GGCGCGCATCGTAACGTCGCCGTCAACGGATTTGTAACCTGCCGCCTCCAAAGCGGATTT  
20 TACGCCCCGCCAATCGTTTGGCGCGGTAATGACTTCGATGGAACCGTCGTCGTTGGTAAC  
CACGCTTTCGACCCGGCTTCCAAAGCCGCTTCCATCAGCGCGTCTTCGTCAACGCCGGG  
TTCGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 920>:

**GNMPP87TFB gnm\_920**

TATTCCTGACGATTACAGGTATTCCTGACGATTACAGGTATTCCTGACGATTACAGGTATTCC  
TGACGATTACAGGTATTCCTGACGATTACAGGTATTCCTGACGATTACAGGTATTCCTGACG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 921>:

**GNMPS93TF gnm\_921**

CGAAATTTTCATGCCTTCGGCTTCTTTGGTGAGCTTGACGCAGAATACCATGCGTGCCAAA  
ACGGATTCTTTGCTGTGTTCAAAAATAACGGGGTGATTTTAACCGATTAAGGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 922>:

**GNMPS95TRB gnm\_922**

CACCTCCTCCACCCGAAGAAAAAATTGATCCGGGTGGAATGGGGTCGGCGGCTGGCCCC  
GTTAATAGTAGTCCCGAATCGTCTGTGGGTACTGGTGCGCCCGTTGTACCGGGTCCACG  
GTGTAGGTGGGTGGCAAGGTGGCTAATGAGGCCGTTCTAGGTGGTACTGGCCCGGTGCCC  
ACTGTTCCCTTGATTACCACTAATTAGGTATTGACGGGTCCGTCGACTGGTACACCGCCC  
40 CCTGGCCTGTGCGCGCCTGTTGGTGCCATGCTGACGACCCCTACTTCCGAAGCGACCGCG  
GTGGTGACCTAGGATAAGTCGAATACTGGGTGTGCTAATGTTATGTCGTGCGCTCGTACC  
TTGACGGGTACCGCCCTTATGTCGTGCGCTGGCATGGTGATGGTGTGCTTGGCCCCGGAT

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GCGACGGATAAACCTGCTAATATTCATGGGACCGCGTTGTTGGTCCCGCCACGCCGTT  
GTTACTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 923>:

5 **GNMPU24TR gnm\_923**

GGATGGATAAAGGCAGCCGGCATTTCTACGCGTCTGTTTTAATACATTGCGGGATTGCT  
GCCTGACTGCCTTAGCCCTTGCTTTGCGCGAAACAAAGACCCGTAAACCGTCTATATTC  
AACGGTTTACGGGTCTTTTTCTCTCTTGCCGTTTTCTTCAGTTTGCCGATCCGACCACG  
10 CCACCGCCGATTCTTCAAACGGTTTCCCGCGTTCTTCCCACTTAACGAACATTAAGTTC  
TGCTACTGCTTTAGCCCAATGTGGAACCTGCGCCCTGTCCGAATGTTGCTGCGCGCTT  
TGCTGAACCTTCTGCCCTTGGCTTTCTTCTTTGTATGGGTAAACAGCAAGCCGTTTTTT  
ACATAGTCCTTGACATCAAATCCGTCACCTCTTTCACTGCCGT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 924>:

15 **GNMPU24TF gnm\_924**

ACGCCGTATATTGACTGCATTAGGCTTGATGGCGGTAACCTATTCAGGGGTGGATAGATT  
GGTAGCCCATTTTACGAGCGGATAACCAATAGCATAACGGGCGCGCCTCAAGCGATGTT  
GCAGCTTTTTTATATAAGCGGCGGTGGAATCGTTCTTAATATCCTGTTTGGCGCGATCGC  
CTTTATTCTGTCAATCATAACCTGACAAAACAGCAACCTCAATCGGGAAGAAAAAATA  
20 AATGGTAAAGATATGTTTGATAACCGGCACGCGCGTTTCAAGGAAACATTATGAATGGT  
TTCCATGATGGCGAATGATGAAATGTTTAAGCCTGATGAAAACGGCATAAGCCGTAAAGT  
ATTTACGAACATAAAAGGCTTGAGAATACCGCACACCTACATACAAACGGACGCAGAAAA  
GCTGCCGATATCGACAGA

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 925>:

**GNMPV25TF gnm\_925**

TTACAACACGGTTTCTTTAGATTTTACGTTCTAGACACTAGTATGAATCCCTGCACCGCG  
CAACATCGCATCTGCTAGATCCGCCGCTATCATACCACTAGCGGTTGCAGCAATCGTAC  
TTCTTGTTGAATCACATTGCCCT

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 926>:

**GNMPV30TF gnm\_926**

GCTTCGGCTTTTTGGCGAGCGGTGTTGGCATCGCCGTTTTTTAAGATGCTCAATACTTGA  
GTGGCGTTTTGACGGATTGGCTTACCGCGTCGGCAGGGGCGGCAAATGCCATGCCGATG  
35 CTCAAATACCGATGCCCAATGCGCTGATGAGGGAGGATTTTTTCATGATTAAGTGTCCT  
AGTTTGAATATGATGGCATAACGTTTATTCGGCGGCTTTTCCGCATTCCTTTGCGCTTGC  
GCGCCGCTCGGCCTTTTGGGGTAAGCGTCGGGTGTCAAATACCGTCCTCTTTGAGCC  
GCAGCTCGGTTTGGTACCATCCATGCGGGATAGCATAAACC GCCGCCCATCAGAAAAA  
ACACCGCATCGATACCGTGCTCGTCGATCACATGCACAGCAGGCCAGGTTGCCACA  
40 ATACGCCGTCGCGGTTTTATGGCGGCCCGGTTATCGTGAGTGTAATCCCTCCAGCC  
GCCAGTCGGCCAGCTGCTTTTTAGCCTGCTTTTGCAATGCGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 927>:

**GNMPV42TF gnm\_927**

5 GTCGTAAATAGCCCTCGAAAATCAAATGCCGTCTGAACATTTCCCGTTTCAGACGGCAT  
TTTTCAAACCGGACTGACGCATCGGGAGCAACCGCCCGCACC GGATAAATTTCTGCCGCA  
GACAGTTTCAGACGGCATTGCGCCTGTACAATATAGTGGATTAACAAAAATTAGGACA  
AGGCGGCGAGCCGACAGTACAAATAGTACGGAACCGATTCACTTGGTGCTTCAGCAC  
CTTAGAGAATCGTTCTCTTTGAGCTAAGGCGAGGCGCGCCGTCCCTCGCAATATCCGTC  
10 CCGCCCGCTGCGGCGGCGGATACGTCTGCCTGCGCCAAAACGGGCGCGTCGTTGATGCCG  
TCGCCTATCATCAGCACTTTTTTCCCTTCTTTTGC AAGGCTTTGACGTATCCAGTTTG  
TCCTCGGCATGGCTTGGGCGCGGTAATGCGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 928>:

**GNMPV63TRC gnm\_928**

15 GGGTAGTGAGGCCCAAAAAAGTTTTGTTCCATTTGAATAGGCTGCCCTTGTA CT TGGT  
AAGGCTCCGACGATGAAAGATGACACCCCGGTAGGCTAGCTCGTACGGTAGATCATTGGT  
GGCAGCGAAGCTGGCCTGACCCCGGGCTATGGCGTACACTAGGTCTTGGATCGGATGGTG  
GATCGGTTCGTACTGCGAGCCGGCCGTTCCGGCCGACCCGATTGTGTAATAGATCCATGGT  
AAAAACCTGATGAGGCCCTTTTGGAGGAATAAGTTGCTCCGAAAATATGTTCCGTTGAT  
20 GAACATTGTAATAAGTTGTGCGAAGGAAGATGGTAGTGCTGCTACTAGTGACATGTGT  
GCGAAAGTTACTGAAAGTACTTCGTTCCATCATTATGGCGCGCATAGTGATGACTTCAAG  
CCTTAAATTATCTGTGAATATCCCGTAACGAAAAATAACATACCGTTAAGTTAAGAAGTG  
TGCGAAAAATCGCCTAATCCTCCTCGGATCCTCCGGCTCGTCCTGATTAATTGCTTC  
GATGAGAACCCCATCCATATTAATAATCGGTTGTATGAATTCCCGACTAATAATGCAGTG  
25 ATTATCGAA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 929>:

**GNMPW59TF gnm\_929**

30 CCAACAGGTGCAAAATGGTATTGGTGCTGCCGCCCATCGCAATATCCATCGTCATAGCGT  
TTTCAAACGCTTTTTTGGTGGCAATGCTGCGCGGTAACACGGTTTCATCGTTTTGCTCGT  
AATAGCGTTTTGGTGATTTGACAATCATACGCCGGCTTCGAGGAACAATTCTTTGCGGC  
CGGCGTGGGTCGCCAAATACGAACCGTTGCCGGGCAGGGAAAGGCCGAGTGCTTCGGTCA  
GGCAGTTTCATCGAGTTTGCCGTAAACATACCCGAGCGTGGTCGGCACGCTTGCCATGTTT  
CTTATCGGCGGCTACTGGTCGCCCACAACCTCGGCCTTCTGCACGATTTCTTGCACGCG  
35 CAACACTGGGACGCTGGCTGGGCGGAGTACTTCGCCAACTTCGTTGTGCGGCTGCTTTCC  
GGTTGATTGCTGCGCTTCCGCCTTGCCGCTGATGAATCGTTTCGGCAGGCATTGATTC  
CTTTTTACATACCGATGCCGTTTGAAAGATGTTGACACGGTATCTTCCGAACAGACAG  
ATG

40 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 930>:

**GNMPW71TR gnm\_930**

CTACTAGATGAAAACATAGAGGTAGAATTTTCATGACATCAGCATGGGCAATTATATTTTA  
CACATGACCCTAAAAGCACAGGCAACAAAAGCAAAAATAGACA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 931>:

**GNMPZ21TR gnm\_931**

```
5 GCTCGGTACACCAGGAATGGTCAGCAACTTCACAGAACTCCTAGTGCCACCTTCCTTTTT
  GAACTTTTATGACTTCTGGACAGCGTCATGATGATTGTCAAGTGTCATGACACCAGTGGA
  AGTGTCTTTTTTTCACATCCCTTTAACCAATGCCACTGCGCTGCCTGCGATAATCTGCG
  AGTAGGCTATGACTTTTTGGCGTCTTGGGGTGACAGTTTGCCTACATCGCGTCCGTCCA
  ACAGGGTTTCTCCACCATCTCGCCGACTGCCGCGCCGATTGCGCCGTCTCGACATTGCT
  CTTTATTTGCTACCGCCGATGCACAGCCTGCTACGGCATGCGCTATCTTGTGGGCAATGT
10 AGTCTTCGCTGAGATTAAGTTTGATTTTG
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 932>:

**GNMPZ44TR gnm\_932**

```
15 ATCGCCCGTCTCAATAACCAATAAGCCTTTGCTCTCGATCCGACCACCATTGGAGATAAA
  TGTGCCTGCCGCTCCTTTTTCGGTGGTTTCGATGGAGAGATAAGTCGGTGAAGCTTCGGT
  GCCGTGGCAGTGGAGGCGATGCGGCCGCTGTTTTCAATGCGGACTGACGAAGTCACAAG
  CAATTGCTTGGCCGCTTCGAGTGTGACGGCATTTTTGACGCCTACGCCTTTTTCATTGGC
  AGTCAGTGTGATGCTGTGCGGCTACATAGCGCCAGTGCGGCAGTATCAAAGGCAATAGT
  CGGTTTCGTACCCGCTGCAGTACCTGCACTGATTTCGCCGCTGGCGTAATCTACTTTCTG
20 AGGACCGGTAGAAACGCCAGGTTTTTACCCTGTAATTTCCCCTGCAGAGCAACTGC
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 933>:

**GNMQA27TRB gnm\_933**

```
25 CAACTCTGCGGATGGGGCAGGTAACATATGTTGCCCTATTTAAAAATTTGTTGTGTTGTG
  TGAGCAGCTATTGGCAACGCGCCTGTGTTTCGCTTTACTAGCCTGGCCATTAAATAACTT
  TGCTTTTACCCTCCCTAGTAGGCTGGACCGTGCCCTGCGTGCACGGCCTAAACATAGGCC
  GCGTGTGTTGTTGGTGCCGTTTGCGGCTCGTACATTGAGCCCGTGTGTGTCGCAATCGTC
  GAGGAAACAGTTCCTGATAACGTTGCCCGAACTATGAAGTGTGGCGTGGCGGTAATGTT
  CCTTGTAATAAAACAGTCGTGCGTGGAAAGAGTGGGGACGCGTGGCCTCCTGTGTAGGCC
30 GAGGAAACTGGGTAGGATCCCCCGTTGACGTGCTGACTAGGAAATCGTCCCGGTGGCA
  GAGTGTGTTGTTGGAGAGCGTGTGATGAGGCGCTTGACAAGATTGTTTGAAATGGCGGC
  ACTGAAGAGGATGGGGCAGTCGTTGCTGGGACGTCGTGGTTCGTTGAGCTGGTGTAAGC
  CTGGTG
```

35 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 934>:

**GNMQA92TF gnm\_934**

```
TTTCGATGCTGCCTTCAAACGCGCCGATAACACGGCTGGCGAGGAAGGCGGTGCAGAGGT
TGACGGCGAGCCACATCCAGCGGTTTTTCACCGAATCCACACGGGGGCGAACAGGTCTT
CCTCTTCCTGCAAACCCGCCATATTCAGCATATCCGCTTCCGATTCTTCGCGGATCACGT
40 CCACCAGCTCCTCCCGGTAAAGTCGCCGTATTCGGTCTTTTGAAGCGAAATGGTAAGG
```

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 935>:



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**GNMQB81TF gnm\_935**

TATTTTATCAGAATGCCGATGCTTGTTCTGTTTCAAATTAATTTCTTTTCAAATAAATTA  
CTTATTTCGGATTTGCCGGGGCTTTCGGATAAATTCCTTGCCAAGGTGCGGCATTGCCTGC  
ATAATTCGCTTTCTTTGCCGGGATAGCTCAGTTGGTAGAGCACCTGACTTGTAATCAATC  
5 AACAATTCGGCGTTTCCACGTCATGTCCGGCAATATGGGTGGCAAAGTTGCCGCCGCTG  
TAGGAGATGAAGCGGTCCGGTAAAGTTTCAGCGCGCGAGTAACGTGCGGCCCTGCCCG  
AATACGACATCCGCGCCGGAATCGACGGCAAGCCGCGCAAACCTCAACGACGTTGCCCTG  
TTTTCCCATAGAAGATTTCCGTATCGAACGGCAGGTGTTCCGCCTGTTTCCCTTCCGCG  
CCGCCGTGGAACATCAC

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 936>:

**gnm\_936**

CGAAATGAAACGGGTAAACACAAATAAGGCCTGTATGCAGGCAAGGTTTATTTGTGTT  
TGACCCGGAACGGGTTACAGCGGCACGAACCGGGATGCCGTGCCGTCTGAAAGGGGTTT  
15 ATCGGGTGGCGCGGTAATCTGCGTCGGCTTTTCAAAGCGTTCTTGGGTTTCGCGCGAAG  
GTTCTTTGTTGAACAGGGAACCAACACGGCAACGATCAAGCAAACAATAAGCCCGGCA  
CGATTTTCGTACATCGTCAACAAGCCGCTTTCTCCTGCCGCTTGAGCCGTTTTTTTCAACC  
ATTCCGCCCATACGACTACGGTTAACGCACCTGCAACCATAACCGACAACGCGCCGTAGG  
CAGTGATGCGTTTCCACAATACGGACAGAATCACAATCGGGCCGAATGCCGCGCCGAAAC  
20 CTGCCCACGCGTAAGACACCACTCCCAATACTTGTCTGTTCCGATCGGAAGCaTCAGGAT  
GGAAATCACGGCAATCGCCAAGACCATCAGGCGGCCGACCCATACCAATTCCGACTGATG  
CGCGTTAATACGCAAAAAGTCTTTGTAGAAGTCTTCGGTAATCGCGCTGGAGCAAACCAA  
AA

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 937>:

**gnm\_937**

GCTTGCCGCCTATTTTTCTACGCGCAATTCGACGATTATATTTTGGGCGGGCGCAGCCT  
AGGCCCGTTTGTACCGCGATGTCCGCGAGCGCGTCCGATATGTCGCGCTGGCTTTTGAT  
GGGCTCTCCGGGCGCGATTTATTTGAGCGGTTTGAATGAGGCTTGATTGCCATCGGCCT  
30 CTTGGTCGGCGCTATTTCAACTGGCTTTTGGTGGCGGGCCGTCTGCGCGTACATACCGA  
ATACGCCAACACGCGCTGACGCTGCCGGATTATTTCTTCCACCGCTTTGGCGGGGCGG  
ACACTTGATGAAAGTGGTTTCCGCACTGATTATCCTGTTTTTCTTACGATTTATTGCGC  
CTCGGCATTGTGGCGGGCGCAACCCTGTCCAAAGCCTGTTGAAGGTATGACTTACAA  
TCAGGCAATGTGGCTGGGCGCGGGCGCGACCATCGCCTATACCTTCTTGGGCGGCTTTTT  
35 GCGGTAAGCTGGACGGATACGCTGCAGGCTTCnTtGATGATTTTCGCGCTGATTTTAAC  
GCCTGTGATGGTCTATCTGGGCTTGGGCGGCGCGGAACAGATGTCTGCCGCGA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 938>:

**GNMQE49TF gnm\_938**

40 CCTAAGGCACATGTCATTATCCCCATTCGATAGGTGAGGACACTGAGGTTTCAGGGAGGGG  
AGACATCTTGCTCCTGGACACCTCAGCTGGGGAGGAAGGCAGTGGCGATCATTCTTAGGA  
ATCTCCGACCGCCATGGGCTCCTGCTCTGTGCACCCTCAGGAGCTTACGGTCTGGTTACA  
AAAATGCCATCTGCCTATGCTGAATTCTAGGCTTATGAAGATCCAAGACATATTCCTGAA  
AATCCATATTTTCATGCATTGTACTATCTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 939>:

**GNMQE84TF gnm\_939**

5 GAACATACCAATTTCGAAAACATCAATAACTCAAAAAGATTCTTTTTATGATCAAGAAT  
ATACCGAAGGTTACCTAGTTGGCTTCGCCCAGGTTTAGGGGTTGCAAAAAGAAATGGGG  
AGCAGCTGTTACAACAGCCAGTTTTGCGCCGTATTTACGGCAGGTGTTAATAAATTCAT  
GATATTTTCCTTCAAAAAGTGTGCGCGGTAATGGATGGAGCGTTTTTCAGACGACCGCC  
GAACATCCGAAAATCAGTCTTTCAAAAATCCGAATACGACAAATTCGTATTGGTTGCCGA  
10 TTTCTTCCAAACCTGCGTTAATCGCTTCTTCGAAGTCGTAGAAATAATCGGCATTGGTGA  
TTAATTGGTATGTCCGATGTCGCCCGTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 940>:

**GNMQF69TR gnm\_940**

15 CAGCATCATCGACAATAATGCTACAAGTGTGCAGGGTTTCGTTTTGTGCGGCGGTTTGGG  
GCATTGCATTCATGGTCATTTTCCTGATTCTGTCTGTGTGTGCCGAATCGGGCGACCTGT  
GTGAAGGTAACAAAAAGCCGCCCGTTTTTCGAGCGGCCTGTTTTGCGTATGGGATGGAT  
TTCAAGCAAGCGCAAAAAAGTACCGCACGTCTGTGTGTGTACCAATAGCAATAAGCGGTTG  
TAAATTTTTTGCCTTGCTGATGAAATGCCGTCTGAAGATAAAAAATATTGGGGAGATTCT  
20 AAATCAAAACGCTGCCGCGCCTCAAGCATTTTATCGAAATTTTTTTGATTTTTCATCTAT  
CCGATTGAAAATATTTTCGGTTTATTTTTACCGCTGCCCGATATTGTCGGCAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 941>:

**GNMQH20TR gnm\_941**

25 CGGATTCCCGCCTGCGCGGGAATGACGAnCTCTCCGCATCTGATTTTGGACCTCTTGAC  
GCGATTTGCTGCATTTTGAAGTGTCCACCAAGATAATCATAGTAAAAAATCGTCCATCA  
GCTGTTGGCTGATGTTGAGAATATTGATTTGGTTTTCCGCCAAAATTTTGAAACATCGT  
ACACGATGCCGACGCGGTCTTTACCGATGACGGTGATGACTGAATTGTTACAGGCTTAC  
TCCTTGAGATATCCGTTAAAGTCCGAAATTATACCACCGTTGGATTTTGAAGAAATATT  
GTCAACAATATATACATACAAAATGCCGTCTGAAACTATTTTCAGACAGCATCAAGATTCA  
30 GGGTTTCGATTAAATAACCATCCTTATCCCACTGGGTTTTCTGACCAACTTGTCATCCTG  
ATAAACAGCTTCGCTCTTTTGTAGAACCATCTTCATACCACTCCAAAACACCCCGTTGCG  
TTGATGGTGGCGGATAGACAGTTCGAGAGTAATCGGCCGCTTTCATCCCAAGTCAGAAT  
TTTGGCAGGCTCATCGTTGACCATAACCATTTCCGTCTTGATACTGCCGTCGGCATACCA  
TTGCTTTTCATACGCCGTTTGCTTATTTTGCTTAACTGGATTTTCGCTTTCCTTGCCGCC  
35 GTTA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 942>:

**GNMQL93TF gnm\_942**

40 CCTACAAACCCGGCCGCCATTCACTCGCAGACTTGGCTAAGTCGGATATTGAAAATCGAC  
AGCCGAATTTACAGGGCCGCGTGGGACGAAGGTTTGAAGGCTATGCCCGCCTGCGCTT  
CATCGTCAACGCCCTTCACGCGGATGCGCGCCCTGACCTTTAAAAACGAACTGGATTTCTGA  
CTACAAATCCACAGTGAAGAAAAATGCCGCTTACCTGCGCCCGTGGTTCAAAGCCCCCG  
ACCGGCAAAACCTCGACCGCACCATCATCTCGGACACTGGTCCTCGCTGGGCTACACGA

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ATGCCGACAACGTCATCTCGCTGGACACCGGCGCGCGGCAAATGCTTCCGAAACAGCTGT  
TAAAAATAATGCATTAGATATTATTTGGGATATTGGCAACCTCGTATGGGACGGCGGTAA  
ATGGATTTACGCCAAATCTATTGGCGATAAGCAGATGGCTCGAGAAGCGGCGATTGATTT  
TGGTGTGGATGCCGCCGACGCTGCCGTTCCCTTTGTTCC

5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 943>:

**gnm\_943**

AGCGGGAAGGTTTAAATAGTTAGGACGCCGGTCCAGAAGTAGTTACTACCCAAAGAAAGT  
GCAACAGTCTATCGGCTGAGCTGCTTCGTGTGGAAGACGCAATGGGGTCTAAACTCACAA  
10 TTGAAGTCGTGGACGTTGGCCCATTTGGTACGGCAGGGGAGTGCCCTCGCAGGTCGACGAAG  
GCGTACCGCAAAGCGCGTTCGGAGGCACTAGAAGCGTGAACGCCGATACGAGCAGTGACAA  
AGTGGGCGAAAAGTTTGTCTGTTGAAAGTTTAAGGCCCTTCGTGTAATGCCTACTGGTGC  
AkGGCGAGCTGGTTTTCAAGGTGAGGTAGAAACGTGCAGCTGACGGGAAATAGGCCAACA  
CCTTCGCATCCGACCTAAACGTGACGCGGGGATGGAGAAGGCCAGGCCGGTAAGTCGCCG  
15 GAACAGTCCGCCCAAGTTGGCAGGCGGAAGATCCAGGTAACTTGGGCTCCTCCAATATT  
GAGAAGCGATGATGAGCGCTCATGGATATGAAGTAATTGACATTATGTCCTTAGGAAAAG  
TTATCAAGTCCTAGCCCAACTGAATTGCATTGTArATTGATATAGGCGGGTAGGACGAG  
AACCTCAAGGTGTCCGAGAGAATCTAGG

20 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 944>:

**GNMQM32TR gnm\_944**

CTATCCGAACCGCTGCCGCCCTCCAAGTAATCATTACCGGCACCGCCGATCAGAGTGTCG  
TTACCGTCTTCGCCGGCTGATGTGTACCAAACCGTCTTTGCCCGGCATCACGCTGACAA  
CGCGCCGACATTGTTATCGAGGATTTTCACCACAGTGCCTTCGTACACTTTGCCCCACTTC  
25 CACTTCGGCAGTAATCTGCTCGATGCGTTTTTTTCGCCGCATCGCCGGCTTCTTGAGTGGT  
TGGGCAATGGTAATCGTACCGTCTTCGGCAATATTGATTTCCGTACCGGTTTCAGCGGT  
AATCGAACGGATGGTTTTACCGCCCTTACCGATAACTTCGCGGATTTTGTCTTGTTGAT  
TTTCATCGTGAACAAGCGTGGCGCGTGTGCGGACAGCTCTTGCGGGCCCGCAACGGCGGC  
TTTCATCTGATCCAAGATGTGCAGACGCGCTTCTTTGGCCTGTGCCAAAGCGATTTCAT  
30 AATTTCTTTGGTAATGCCTTGGATTTTGATGTCCATTTCAGCGCGGTAACGCCTTCGGT  
CGTACCGGCCAGTTTAAAGTCCATATCGCCCAAGTGGTCTTCGTGCGCCCAAAATGTCAGT  
CAGGACGGCAAATTTGTTGCCTTCCAAATCAGACCCATCGC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 945>:

**GNMQN35R gnm\_945**

GCCTCGCCTTGCCGTACTATTTGTAAGTGTCTGCGGCTTCGTGCGCTTGTCCTGATTTTTG  
TTAATCCACTATAAAAGAGGGCGTCTGAAAAACATTTTTAGACGGGCTTGTTATTCAA  
TCAAATTAGTCTTTCAACTTTGGCAACTGATTTTAACTTTTGCCATTTTGCCCTTCCAAT  
TCCGCCAAATCGGGTTTGCCTTTTTCCCCCAAATTCCCAGGGGGTTTTTC

40

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 946>:

**GNMQN72TR gnm\_946**

AAACGTCTACACATCCTTTTAGTGCAATTCGCTTAAATTTGTTAACTTGGTAGGGCC

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CTTATCTTCGAAAAATTACCTCTTGTTAATATGTTGTGTATTGTTGTGTTTCGACTGAAA  
TTGCGCCTTAGTAACAAAAAATTGTTCCCTTGTTAAATGGCTGGGTGTGTTCCGTGTTAAG  
GCGTGGACGTAGTCCAGGTTGCTCGAAAAGCTGGCTAGTGTGACCCGTGGTCTAAATTGT  
AAACTGTTCCGTAATAAACGCCCCTGTTGCCCCCTGACACAGGGTGGGCCGGATATGACG  
5 ACGCTTTACCCCTTTCCTAGATGGTACTGCGCTGAATTATGAATTGCGCGTAAACCTG  
ATTTGTGTGTTTAACTTGTGTACCCCTTGTGTTGCCCTAAGGGTGGGTGGGTGCGACG  
CTGGACGTGTGTATAAATGTACTGGGGTGCTGAGTGTGATGGCCATGGGAATTGTGTTG  
TCGTTTGCTTTAACTTTATATGTGTTTGGCCCTGGGTAGGTGTGTTAACATGGTCCTG  
ATTAAACGCCCTGGCCCTGGGGTGTGGAAGTAGTATGTCTGGACC

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 947>:

**GNMQO54TRB gnm\_947**

GGGTGCATGCTTAAGAAAAATTATTGTTACTAGTGTGATTAAGATTAGGTGGAACCCGCTG  
ACGGGGGTGATCCGTGAGGTGCCGTTTAGCCGTAGGGTCCCAAAACAGGTGAGTTAAGAC  
15 GTGTTGGCAGTAAGATTGGACAGGACGAGGAACGCTTAGCCGTGTTTTCGAAAGTTGCCT  
ATATTTTCGTTACCCGTTGGCGCAGGCCAAAAATAACAATAAAGTGGTAAGGACGATTAAG  
GCGTGGACAAAGGCGGTGAACTGGAACCTCACATTTTCGCAAAATTACCCCGGTGAAAACA  
GTGGCTAACGAGGTGAAGTTCGTTGACGTTAACGTTTAAAATAGTTACGTGCCGTCGTTT  
ACGCCCCCTCTCCGGACCGCGAATAACACGAATGGCACCCCGCCGTCGTGCTAAAAACC  
20 CTATCGTGGGCCCCGGCGTGGACAATGCCACAACACGTTTCGACACCAACCCCTAACTTATTC  
GCCCCGTGTTTCGACGTCCCTAGATGGTACGCTTTCTTCTACCCCTCAAAGGAAAGCTACGA  
GTCCTAAAATTGACGTTGAACTGTAAACTTCTTATTACGTGTTTGACCGGTGAAACCC  
GTTGTTAAGTCCGGCTCGAA

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 948>:

**GNMQP31TR gnm\_948**

GCTGTAAATGTTCAAACACTACGCCGTCCACGATTTTGCCGAGTTTTTGGAGCTGTACGG  
CATGCCCATCCGTATCGGCAAAATACGGCGCGGGCGCAACCAAAGAGGAAAAAACACCCCT  
GCTTCGAGCGGTGGCGGAAATCGGTGCGCGGGCGTGGGCGGTGAGGCTTTTCGCCGTGTC  
30 CAGCACGCTGGCGGTTTCGCCTAATTTTTGCGCGCCCTGTTCCGAAACCTGAATCAGGCT  
GGAGCGTTTTTGGAAATCATATGTCCCCAAAGGCGAGGAAAAGCGGGCGGTTCGGCTGGT  
GGGCAACACATGGTTTTGGACCGGCGCAGTAGTCGCCGAGGCTTTTCGCCGTGTAGCGTCC  
CATGAAAATCGCACCGGCGTGGCGGATTTTTTTCGCCCATTCTGCGGGTTTTTCGACTGA  
CAGTTCCAAGTGTTTCGGGGGAAATGTAGTTGGCGATTTTCGCAAGCTTCGTCCAAGTCTTT  
35 GGCGAGTATCATCGCGCCCTGTTGCCGAGCGAGGCTTCGATGAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 949>:

**GNMQP64TR gnm\_949**

ACAAGAAGCTGGTAGCTCCACCGCGGTGGCGGCCGCTCTAGAACTAGTGGATCCCCCGGG  
40 CTGCATGAATTGGCAGCAGCTCGTGCCGAATTCGGCAGGAGCGACTGCATTGGGAAGATC  
AGTTTTCTGCCATCCAGGCTGCTCCCTCCTTCAGCAACTCATTCCCACAGATCTTCCGA  
GACAGGACGGATATCCAGTGCCCTATCCCATGTGCCATTGACCAGGATCCTTACTTTAGA  
ATGACAAGGGACGTCGCCCCCAGGATCGGCTATCCTAAACCAGCCCTGTTGCACTCCACC  
TTCATCCCAGCCCTG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 950>:

**GNMQP64TF gnm\_950**

5 TGGGTACCCGGCCCCCCTCGAAGAAGAAGGTCAGGTACATGAAAGACACGTCCACATCA  
CAGTTGCCCCAACTGCCTGTGCTCCTCGATGGTGTCTCTCCCTCCAGAAAACGCATGC  
TTATTGACCTTGGTTTTGATCTGCTTGGCCGTGTCGGTGAGGAAGATGGCGGAGTTGGGG  
TCGCTGGGACTCATTTTGGTCTGGGCGACCTGCATGGCTGGGAAGAAGGTGGAGTGCAAC  
ACGGCTGGTTTACGATACCCGATCCTGTGGGCGACGTCGCTTGTCATTCTAAAGTTAAGA  
10 TCCTGGTCAATGGCACATGGGATAAGGCACTGGATATCCGTCCTGTCTCGGAAGATCTGT  
GGGAATAGATTGCTGAATGATGGAGCATCCTGTATGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 951>:

**GNMQR24R gnm\_951**

15 CTTGCCCGCAAAAACGTGGCGTGTGCACCCGTGTATACACAACCTACCCCGTAAAAAACCT  
AGTGAGTTAGCATCATATTGCTGCCATTTTTACGGTCTTTCCTAAATAAGCAGTAAAG  
GCTTTTTCTCCCCACGGCAGGAGGCTTGGCGATAAAATAGGCGAAAAGGCAGAAACACTT  
TGATAACGTTCTGATTCCGCGAGCGCCAATACCAATGCGCCGTGTCCGCCCATTTGAATGT  
CCCATAAATGGAACGTTTGCCGTTGGTAGGAAAGTGTCTCAATCAGACGGGGTAGCTCG  
20 TTCAAAATGTAATCATACATTGATAATTCGCCGCCCAAGGCTGTTCCGTCGCATTCAAA  
TAAAAGCCTGCACTCTGTCTTAAATCGTAAGCATCATCGTTCGGCACTTGCTCTCCGCGA  
GGGCTCGTATCCGGGGCCATCACAATTACTTGATGTTCTGCCGCATAACGCTGAAAGCTG  
ACTTGGTAATGCAATTTTGTTCGTTACACGTCAAGCCGAAAGCCAATAAATCACACCAA  
CGGTCGATTTTCTGGATTATCT

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 952>:

**gnm\_952**

GGCTGAAAATCATGCAGGACGGGTAATCGGCGGCTTTGACGGCTTCTGCCAAGCCACCA  
AGGATTCATCGGTGTGCGACAGCCGCATACGTCATATTCGGAATCAGGCGCAGGGTAG  
CGGTTTGCTCAATCGGTTGATGGGTGCGGCCGTCTTCGCCCCAACCGATGGAATCGTGGG  
30 TAAACACAAATACAGGGTTGATTTTCATCAAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 953>:

**GNMQU51TRB gnm\_953**

35 CTGTGGTGTGGGTGGGACGTTTCGTTCCCTTGGACCCAGAGGCAAATGACCCTGTTATCT  
TGTTTCCCGTCCCTGGTATCCGTTTATTAGATAAACGTGGGTAGTATGCTTTTCAGTGCC  
CCGTGCCTGTCCCGGTCTCTGTTTGACGGGACCCGACGTGCCGTGGGGAACCGACGGGG  
TTGGGGATGAGGATGCCGGTGTGTAGGCCGTTGAAGTGCTTTACCTGCTGGTGGTGATC  
CCGTATAGGCAGCCTAATGTGGTCCCGGATGTGTGAAGTTGTTTTAGCAGGTCCCGGGC  
40 GCCCTGTTGCGGTCCCTGTTGATGAAGACGATGGATGTGCTGGGTGATCGTCTAGTAGT  
GGGAATAGGGTGTGGGCTAGTTTTACAGGCGTGATGGCGCCGACGTGGCACCGGCCGATT  
TACCTGGTGATGGCCCGGAACTTAGTGGTGAGAGGGTGCAAAAACAGTTGGTGATAGCGG  
ATGACGTTGCTTAGCCCGTTCGTCGCTCCTGGTAACGGCGGTGGTGAAACGCCTAAAC  
CTCCCCCTCCTTGTGTCAACAAGGCTAAAGTAGACGGTGAACGGCCTGGGGCACTTGGTC

CTGATAACTGTGCTACATATCCCC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 954>:

**GNMQU68TRB gnm\_954**

5 TTTGATAAGGAACCCTGTCATTCAGGATTGCCACAGCCATGGTTGTTGCCCATCGGGGT  
CCTGACTTGACGTCTCTATACTCCTAACCAATTCCTTAGTATTGGGTAGGTGCTATATTT  
CACATGCTTATCCCTGCGCCAGTAGAGCGTCGCGCCCCAACAAATAGCTGTAGTTATTC  
ACCTCTCGTGATTTCTTGGGGTCCATGGAGTAAGCTTCCAATTCAGAGGGTACATTCCCT  
CTTTGAAGCCATGGCACTAACCCGTTGAGCCTTCCTCTTCGAGCCTCTCTAAGTGTTC  
10 GAACCTCTACTTCGTTTATTTCGCGCTGGCCCGTGGCATGGCCTGACCTAAATCGAAGTCC  
AGCGGTCCCCTTCGGAAGTGCAGCACTGGCCCGTCTGCGCTTGCAGATATCTGCTGCTAT  
CCTCTGGCGCCAAGAAGATTTGGACCCGTTCAAGCTCCTTATTCAATTGGTCCAAATAAGT  
CACCTTAATAGTCCGTTAATTCAATTCCTCTTGCTTTTATACTGTACCCGAACCTAAGCAT  
AGGAACACCAATTCGCCCTTACTGATCATGTACCCTCGTTCGTTCAGGGGTTGATCTA  
15 TTTCATGTTGACGAAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 955>:

**GNMQU88TRB gnm\_955**

CGTGTGTTGCTGGCTTGACCTCGTTGGAATATAAGTTGTACCATTGACGGGTGCAGGTA  
20 TGTTGGAAGATTCTGCGCATGGTGCGGTATATGGTACTGACACGCCTGATCGTGCGACGT  
TTATTTGTAACGTATGTAATGGTCGGTCGCCCATTTGCCCTGGTGACCCGAAACTAAAA  
ATGTTAAATATAAGTCTGATAAGTGCTTGACAGATGAAAGTCGTATTCGTATGTTTCGTT  
AAAACTCTAGTTGTGTTTCATTTCGTATTACTCGTATTGTATTGGTGAAACTCCGGGTGAT  
AGCCGAATATTACTTATAACTCGTACCCTCATTAAGCTACCACGGTGGAACGTGTGAAG  
25 TTGCTGAATAAGGTAAACCCGTTGATCGGTAGGTGTGACCTTATGAAAATTGTGTATGTG  
GTATAGATCGACCTTTCGTAACGTTGCTCGAAGTTGCTCCTAGATGGTACCCCGTTGTCCC  
ATTTTCATTTGTATCACCCCTAGAAATTGACTACGTCTTACCTCCCTTAGAATTTCTTT  
CCCTTCACATGTAATAAAATTGCATTGTTGCCCCGTGCGCGAATTCTGGTATGTTTGATG  
TGTTGATTG

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 956>:

**GNMQX55TF gnm\_956**

AGGATCCCCACGAACACAAAATGACCGTACAGACCAAGACAAAAGGTTTGGCGTGGAAG  
AAAAACCGCTATCCGACAACGAACGTCTGAAAACCGAAAGCAATTTTTACGCGGCACGA  
35 TTTTGGACGATTTGAAAGACCCGCTCACGGGCGGCTTCAAAGGCGACAACTTCCAACCTCA  
TCCGCTTCCACGGTATGTATGAGCAGGACGACCGCGACATCCGCGCCGAACGCGCCGAGG  
CAAACTCGAGCCCTTGAAATTTATGCTTTTGGCGCTGCCGGCTGCCGGGCGGGATCATCA  
AACCGTCCCAATGGATAGAACTGGACAAATTTGCCCGGGAAACAGTCATTACCGCTCCA  
TCCGGCTGACCAACCGGCAAACCTTCCAATTTACGGGGTGCCGAAAGCCAAGTTGCAGA  
40 CGATGCAACGCCTCCTGCACAACTGGGTT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 957>:

**GNMQY03TR gnm\_957**

CCTACTCTCCCTAAGCAACGAGATGAAACAGCGTATCGACTCCCTGCCGGTTGAATTTTC  
CGAAAAAACGCGACGTAACCAGCATCAACATATATAAGAACAGCACAACCTAGCATCAATA  
CATCAGGCAACGAAAATGCAGAATAATGCACCTAATGGTGTGTTGGATATCTGTTGTTTG  
5 TGCTGTTAGTAATTCATCTTTCTGTGTTTACAGTTTAGCAGTTGTACAGTTTATAGTAA  
TGTTTAAACAATGACTGATTTATTTTAAATGCAGATATTGTCGAGGATAAACATGGCCAA  
AGCCCTTTCAGTAACATTTCTGATTTTTTAGCGAGCCTTCTCATTTCCCAGCGAGATCG  
GTACTGGTACCTGTACTTTGGCCGCGATATGCTTAAGTTCAGTAACCTTAGCGCGCAAA  
TCCAGTAACCTTACGTTACGT

10

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 958>:

**GNMRB37TF gnm\_958**

CACCAACCTATGTGTCGTCCTGATCTGGGAGGAGTTGTCCCTCCCAAACAAATCTGATTC  
TACCGCCCCGAAGAGCGGGGTTTCAACCGACAAGGAAGATTGATGAACAATATGTTTGCC  
15 GCAAAATTGTCCAACTGGTTTATACCGCTTCCGACCATCCTGATTCCCTGTCCGAGATG  
GAGGAGTTTGACCGCTGATTCTGCTGATACGCAAACTGTATCAAATATTGGACGGGCAA  
CATATCCTCTCCAGAGTAACGGTTTGCCTTACCACCAAAACCGGCGGACCTGATTGCC  
TTGGATAAAGCGGCTGCCGGTTGCGATTTCGGCAATGTTGCGCGCCCAACGTTGGCTCGGA  
CGACATGGTTCGCCGCCATAAAATTCGGCGGGGTAGTGCCTTTAAGCCATGCGGTCTGGTA  
20 GGAAATCAGGGCGTAnGCGGCGGCGTGGGATTGTTGAAACCGTAGCCGGCGAATTTTTC  
CATGTAGTTGAAGATTTTCGTCGGATTTTTCGCGCGAAATGCCTTGTTTTGCCGCGCCTTC  
GGCGAAGATTTTCGCGGTGTTTACCATTCTTCGGGTTTTTCTTACCCATGGCGCGACG  
CAGCAGGTCCGCGCCCGCCGAACGAGTAACCGCCGGATAATTTGCGCCGCTGCA

25 The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 959>:

**GNMRF35TRB gnm\_959**

TATCGCATTGTAAAAAGTAAACAAAGTAAAGTTTGGGCGGTGGAACCGGCAGATGTGTC  
AGTCCTAGGCGTCAGCACTTCTATGGGCGCGGAAGCCTGAGCTCCTCTTTGGGTATTAA  
CTAAACGTCCCGTCCCAACCTAACACCCAGACCGTTTGGGCGGTGGAACCGGCAGATGTG  
30 TTAGTCCTAGGCGTCGGCACTTCTACGGGCGCGGAAGCCTGAGCTCCTCTTTGGGTATTA  
AACAACAAACCACTTTGACCGGGACAACCTTGTTACCAGAGAGGCGGACGAGCGGCCCA  
AGCTGTATGTTGGAAGTGCACATGCGAACAGTGCACTGAGGGCCTGAACCTTTCCTT  
CTCTCGTTAAACATAAACTTTAAATCCCCATGGCCCGGGACCCCCACCACCTAAATAAC  
AACCCTACCGGAAAAATTTGCCACCGCTCACAACCTGCTACTAATTGTCCATAATCACTTG  
35 CCATTGCCCCCGCGGCACGCCCCGTGGCACGCCCCATTTCTCCTTCTAGTTTCGAAGGA  
TCTAAAAGGTGCACCTTCTAAATGGTACCGCTGATACGTCGTTGGGAAGTTGAATTTG  
ACATTGAAATGTGATGGGGTGACACATTGTGCGAAAAACGGTGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 960>:

**GNMRH76TR gnm\_960**

CATGTTGGTGTCTCATTACGCCCTTTCTCCCAAGAATGGTAAGGACGACAGGCAACGGA  
CGGTAAACGAAGAGCTTGAAGAGTTGTTCAACTCAATCGAATCCGCCCCCGTTTCAAC  
ACCAACCTGTCTGCCGGAATAGATGTAGCCGTGCCGCGCCAGCTTTTCCAAAAGCTCG  
CCCAACTCGTGTAGCCCATATTGATGCGGTCTGAACCTCTGAACAGGCAAGGCTTTG  
45 CCTTCTTTTTGCGCCGCATCCAGAAGCAGCAGGATTTTCAACACGTCGTCAAACCGTCCG  
CGCGAGTCGAAGCCCCTGCCGAACGCTTCTCCCTGCCAGTAGGAGAGTGAAGAAGTCAGC

CGCGAGTCGAAGCCCCTGCGGAACGCTTCTCCCTGCCAGTAGGAGAGTGAAGAAGTCAGC  
ACCGCGCCGCCCAAGACCAGCGTCCA

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 961>:

5 **GNMRI44TR gnm\_961**

TAAGGC AAAACAAGCGTTTTCGTCATTTGAGGCGTGTGGATTATTCCTTAGGTATTTT  
CGGGCCGGAGACCAACGAGGTGGCGGGTGTCTCGGTACGTCCGGAGACCAAAATAACTT  
TGCCAGGGATGTTGGTTTCGGCGGTCAAAAAAGTAGCGTCTTAATGTTTCCATTATAA  
CAAATGTCGGTGAGGATGCGGTTGTTAAACGATTTGCATGGCGTTGTGCAGTTGCAGC  
10 AGGTAAACGGTCGGGGCGGCGAGTCCGATGAGGACGCGTTCGGCGGTGGGGTGGATGCGG  
AAGCGGTGCATCAGTGCGTTGTTGTTTTGGAGCCGGCCGTTCATTTTCCAGTTGCCGATG  
ACCCATTTTGTATCCACATTCCGATTTGGCGATACATCTTTTTTGCTCCGTGTCGTGTT  
TTTTTGTCTGCCGCGTGTGGCGCGGTGCAACGTGAAGTTTAGTGGATATGCGGCGGGTTC  
GCAACTTGAAGCGGCCGCGCGGGCGGTTTGGAATGTTGTTTCGGGCAGGCTGTTTTATAA  
15 TGGCCGCTGATATGTATGCAACTATAGGAGATGTGATGCACGCGCTTCATTTTTCGGCT  
TCGGACAAGGCCGCGCTTTATCGGGAGGTGTTGCCGCAGATTGAGTCTGTGGTGGCTGA